NAVAL AVIATION NEWS

44th Year of Publication

JULY 1963

NavWeps No. 00-75R-3

THE TALKING TRIPHIBIAN

Two speakers on the nose of the UH-2 Seasprite helicopter are symbols of the sophistication in the state of the Search and Rescue art. Through the speakers, the pilot of the Kaman helicopter may talk to a "rescue" while maneuvering to the point of rescue. A flotation hull permits landings on water undulating with up to five-foot swells. Still another advancement is the maneuverable ramp, which permits the rescue crew to "scoop up" an airman on the water without requiring a dunking for crew members. For more about this new bird, see page 12.

■ CREDITS

Naval Aviation News is indebted to the Kaman Helicopter Company for the above picture of the UH-2 Seasprite in action. The National Aeronautics and Space Administration made available the pictures on pages 6 & 7 which show the steps in the recovery of Astronaut Gordon Cooper by USS *Kearsarge* (CVS-33) in the Pacific ocean.

NAVAL AVIATION NEWS

FORTY-FOURTH YEAR OF PUBLICATION JULY 1963

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Issuance of this publication was approved by the Secretary of the Navy on 3 April 1961

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NAVAL AVIATION NEWS

Air Museum Is Dedicated

VIP's Witness Opening of Building

On June 8, at NAS PENSACOLA, the Naval Aviation Museum was officially opened. After the ceremonies, the air station held "open house."

The opening climaxed years of planning which began in the late 1950's. A Boeing F4B-4 was the first major item to arrive. On May 2, is was delivered to Pensacola in a C-130. The F4B was first delivered to the Fleet in August 1929. It was the Navy's No. 1 fighter from 1929 until the middle 1930's.

In addition to some of the earlier aircraft connected with Naval Aviation, there were displays and exhibits of the space age, including the actual capsule flown by LCdr. Scott Carpenter and the wings he wore in orbit.

Also housed in the museum are more than 30 scale models of old and new aircraft connected with Naval Aviation. Among these models is a T-34 *Mentor*, the first aircraft now flown by a student aviator in the flight training program. In addition, some of the realistic displays include a balloon gondola which carried Ross and Prather to a record altitude of 114,000 feet, and a Union engine, the first aircraft engine made to Navy specifications.

Historical documents and combat art are also on display. Contributors to the establishment of Naval Aviation, such as Capt. W. I. Chambers, Glenn Curtiss and Theodore Roosevelt, also are recognized.

Details and general information on the purpose of the Naval Aviation Museum, together with the type of materials and items which are desired for inclusion in displays and exhibits, are set forth in OPNAV Instruction 5750.10, dated 20 March 1963.

While the beginning of the museum is a modest one, long range plans call for a modern structure and special displays which will increase interest.

F4B-4 FIGHTER ARRIVES IN C-130 FOR DISPLAY IN NAVAL AVIATION MUSEUM

RE-LIVING *pioneer spirit of 1912 "Curtiss Pusher," Ray Fife explains to Cpl. J. Y. Grattan and Pfc. R. D. Jordan history of model which he built in 1926-28. It is on display at Naval Air Museum, Pensacola, Florida.*

USAF Selects Skyraider

For Air Commando Training Use

Two squadrons of A-1E *Skyraider* aircraft are to be added to the 1st Air Commando Group at Hurlburt Field at Eglin AFB, Fla., after the first of the year, according to the USAF.

Selection of the Navy multi-purpose aircraft was made by the 1st Air Combat Applications Group after evaluating several available aircraft. The *Skyraider's* design allows for conversion to any one of 12 or more combat versions. These include day or night attack, photo reconnaissance, troop carrier or ambulance configurations. The planes will come from the Navy's excess aircraft inventory.

The hydraulic and electrical systems are similar to those of aircraft now in use by smaller nations where insurgent activities are underway or may take place. The Air Commandos also use the C-47, C-46, B-26 and T-28 aircraft for many similar missions.

The *Skyraider* carries a one- or two-man air crew, has a range of 1200 miles and a speed of 285 mph. It is powered by a 2700-horsepower Wright engine. In its attack configuration, it will carry 8000 pounds of ordnance, according to Tactical Air Command's Special Air Warfare Center.

Marines Sought as NAO's

Officers and Enlisted May Qualify

Designation as Naval Aviation Observers is available to a number of Marine Corps officers and enlisted personnel who meet the qualifications. Applications are sought from unrestricted and reserve commissioned officers in the grade of lieutenant under 27 years. Captains, if they have been in the fields of air control or aviation, are also eligible.

Enlisted personnel will be considered for selection upon application for the new NAO program in conjunction with the annual Warrant Officer Selection Program if they are under 27 years of age at the time of application and have a general technical and aptitude test (GT) score of 110. Certain MarCads, dropped from the Flight Training Program after the primary phase for reasons other than by their own request, are also eligible.

Candidates will be selected for NAO training by Headquarters Marine Corps from among the applicants who successfully complete flight physical examinations, aviation selection tests, physiological indoctrination and flight indoctrination in jet aircraft.

Enlisted selectees will be ordered to the Warrant Officer Screening and Basic Course at MCS QUANTICO before undergoing the NAO Basic Course at Pensacola, Fla.

Program details are in MCO 1040.

Helicopter Awards Given

SH-3A Record and Pilots Honored

At the annual meeting in May of the American Helicopter Society in Washington, D. C., honors were conferred for helicopter achievements in 1962.

The Igor I. Sikorsky trophy, which is given annually "in recognition of outstanding achievement in the advancement of the helicopter art by the establishment of an official world record" was given to Sikorsky Aircraft for the s-61. The presentation was made by Karl G. Harr, Jr., president of the Aerospace Industries Association. Lee S. Johnson, president of Sikorsky, a division of United Aircraft Corporation, accepted the trophy.

A Sikorsky s-61 helicopter (the U.S. Navy's SH-3A) set a world speed record of 210.6 mph on February 5, 1962 over a 19-kilometer (11.81-mile) straight line course. The record run along the Connecticut shoreline marked the first time a helicopter had flown at a speed well over 200 mph.

The pilot and copilot on the record flight were honored at the same time. Lt. Robert W. Crafton, USN, and Capt. Louis K. Keck, USMC, were named winners of the Frederick L. Feinberg Award. This award is given each year "to the helicopter pilot who accomplished the outstanding achievement . . . in the preceding year."

MR. JOHNSON, CAPT. KECK, LT. CRAFTON

Edwin J. Ducayet, AHS president, awarded AHS honorary fellowships "for meritorious service in the advancement of rotary-wing aeronautics" to Michael E. Gluhareff, former engineering manager and still a consultant of Sikorsky Aircraft, and Robert A. Stang, chief engineer for the VTOL/-STOL branch of the flight test division of NATC PATUXENT RIVER. Mr. Stang, who took part in developing and evaluating the s-61, was instrumental in planning the helicopter's various record runs. Both Lt. Crafton and Capt. Keck were stationed at U.S. Naval Air Station, Patuxent River.

A U.S. MARINE CORPS *CH-46A Sea Knight helicopter, designed and produced by Vertol Division of the Boeing Company, is shown above as it prepares to take off from and land on (at right) the flight deck of the new amphibious assault carrier, USS Okinawa (LPH-3). The series of the touch-and-go landings was performed as an early compatibility test. Each of the carrier's ten landing spots was used. Deck handling techniques were also demonstrated. The Okinawa was underway down the Delaware River after leaving the Philadelphia Navy Yard. Complete carrier trials for the CH-46A are scheduled this year during the BIS trials conducted at the Naval Air Test Center, Patuxent River, Md.*

GRAMPAW PETTIBONE

Wrenched to Pieces

A Marine OH-43D (HOK-1) lifted off from a Far East island base early one fine morning, headed for the far end of the island for a full day's work of ground troop support. The pilot was scheduled for a couple of passenger stops en route and had one passenger aboard in addition to his crew chief.

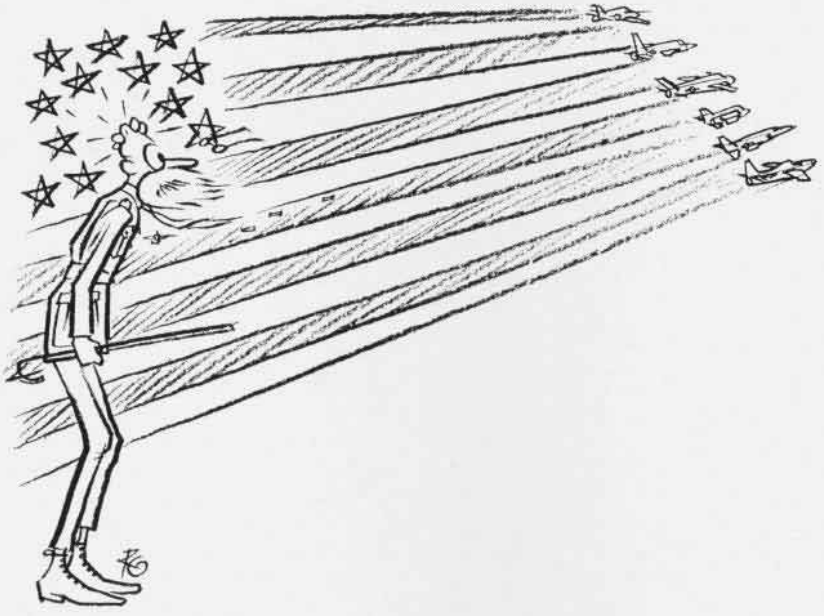
At the first stop the pilot made a low pass over the pick-up area and, since it was deserted, waved off and continued on to the next camp to drop off the lone passenger, as scheduled.

A slow descent was started one mile out from the helo pad and everything seemed to be running smoothly. As the helo reached an altitude of 200 feet and at an airspeed of 45-50 knots, the pilot felt something was going wrong with the controls! It was taking excessive control pressure to hold the nose up—it wanted to tuck under!

He eased on a little more power in an attempt to slow down the rate of descent. The approach was going from bad to worse, so he added power for a wave-off. The helo rolled rapidly into almost a 90° bank to the left and they were only at roof-top level!

He strained hard against the cyclic control and, suddenly as though something had given way, felt it break loose. The helo recovered and immediately rolled to the right. It looked as if it were going to roll all the way over. The pilot thought they'd surely crash inverted into the buildings around the landing pad, so he downed the collective and let the helo smash into the ground, right side up but hard!

The helo rolled over and over several times and came to rest, a total wreck and burning, lying on its right side. After a few moments, the pilot and crew chief forced open the port door. The crew chief leaped out and the pilot grabbed the dazed passenger, shoved him up and out and then leaped out himself, his own clothing afire. Other than some serious burns on the pilot's legs and moderate burns on the crew chief's neck they were O. K.



Investigators found a loose ⅜ inch wrench in the burned cabin wreckage. It had evidently jammed the control mechanisms.

Grampaw Pettibone says:

Sufferin' catfish! Too bad the guy who left the wrench in there wasn't in this helo-bird on its last ride. It'd have made a real string and wrench saver out of him. We lose several planes a year to just this kind of "damfool" carelessness and a lot of pilots are plain lucky. The O&R's clean buckets full of debris out of the innards of aircraft in rework.

Me—I can't even find a worthless hammer, but I'm getting old and forgetful. A young maintenance man, on the other hand, can't afford to lose even a single tool for its value can reach as high as a man's life.

Rescue

A young airman, working in the hangar deck area of a big CVA, walked behind an RF-8A *Crusader* which was turning up with the tailpipe directed out the wide open No. 3 elevator ramp.

There was a great deal of racket in the hangar deck area and he was completely unaware of the bellowing engine in his path. As he stepped into the path of the jet blast, he was snatched up and hurled bodily through the opening and far out into the sea below!

"Man Overboard" was sounded immediately. The plane guard helo, already hovering near the flight deck, came to the rescue and was over the thoroughly dunked victim in less than a minute.

The helo crewman quickly observed the obvious panic and near exhaustion of the man in the water and went down the cable into the water to help him, with the pilot's approval.

The man struggled violently with the rescue crewman, climbing on his back and dragging them both under time after time, finally getting what seemed almost a death grip on the rescue hoist cable itself. The rescue sling meanwhile became detached in the melee and floated away.

The helo crewman also grabbed the hoist cable with his Chicago Grip, a

ILLUSTRATED BY Osborn

handy gadget, and hung below the panicky victim, helping him as much as possible as the pilot hoisted them both up.

Just as they reached the helo hatch, the man lost his hold on the cable and tumbled back into the water, almost taking the helo crewman with him. The crewman was made of sterner stuff however and hung on. After he had safely clambered through the hatch back into the helicopter, he coolly lowered another sling to the frantically floundering man below and this time brought him safely up and aboard.

It had been what the plane guard men call "a complicated rescue."

Grampaw Pettibone says:

Holy smokes! I'll bet this airman shies away from jet tailpipes like they were coiled rattlers and will be standin' beers to this helo man at every port call. Sure wonder where the outside observers were during this engine turn-up. A little protection for day-dreamers who walk around in a daze is less effort than "Man Overboard" exercises like this one that take the concentrated efforts of a good part of the people on the ship.

Rescue demonstrations by the helos for all members of the ship's company can pay real dividends when the chips are down. This victim didn't know *beans* about rescue procedures!

Wild Ride

An RF-8A which had been scheduled for launch from a big CVA for a photo flight was downed by the plane captain just prior to final spotting on the No. 3 catapult because of an oil leak in the port wheel well.

The photo *Crusader* had to be taxied forward on the angled deck to clear the catapult for the impending launch. The pilot followed the plane director's signals, taxying straight up the catapult track with the nosewheel and starboard main wheel in the track and between the Van Zelm bridle arrester tracks. The director gave the pilot repeated signals for right brake in an attempt to get the *Crusader* out of the catapult track and headed for the No. 1 elevator. The pilot repeatedly held hard right brake, but the deck was wet and the plane skidded along the track for 15-20 feet, all efforts to turn unsuccessful.

At this time the *Crusader* passed behind four A-4C's which were turning up in preparation for launch from the bow catapults. These aircraft were parked just forward of the angle deck foul line with their tailpipes pointed directly at the taxying photo plane. At least one of them was at 100 per cent power on an engine check.

Simultaneously, the big CVA commenced a turn into the wind and the deck heeled to port.

The plane director now gave the *Crusader* pilot a "hold" signal and he applied both brakes. The RF-8A began to slide *sideways* toward the deck edge in spite of the pilot's efforts, holding hard right brake and using nose wheel steering, picking up momentum as it skidded on the wet deck.

As the *Crusader* went over the deck edge and at an angle of approximately 50 degrees nose down, the pilot EJECTED!

Witnesses described his trajectory as an arc outboard away from the ship and riding to an estimated height of only 15-25 feet above deck level as the ejection seat took him clear of the doomed plane. Only the controller and drogue chutes deployed prior to the pilot's entering the water in a face first position and apparently still in the seat!

While under water, the pilot reached behind him to release himself from the seat but found it already gone. He was still wearing his oxygen mask and breathing underwater with no difficulty. Calmly pulling the toggles on his Mk 3C life jacket, he popped to the surface, disconnected his parachute fittings and only then realized he had suffered some serious facial injuries. He could barely see. Suddenly he realized that an object he could see only dimly through the blood on his face was, in fact, that most wonderful of all sights, the three-pronged seat of the rescue helo, already on the scene and ready to hoist him up! He swung a leg over the nearest prong, hung on and was swiftly hoisted to safety. He'd been in the water only 52 seconds, thanks to this top-notch rescue crew. By the time the rescue hatch had closed, the pilot could no longer see at all but with prompt medical care was O.K. after a few days. His major injuries were cuts from his broken hard hat visor. It had taken up most of the impact but busted in the process.

Grampaw Pettibone says:

Holy mackerel! This pilot had some mighty extensive water survival training, had in fact practiced release of his chute fasteners under almost any conceivable situation, with gloves on, wet and slick, and gloves off. As a consequence he never panicked. He *KNEW* he could get free, even under the most adverse circumstances! His entire survival performance was outstanding and reflects the approach of a real PRO to every facet of his profession as an aviator.

Second guesses are easy, but a full stop and use of a tow bar to get him out of the catapult track might have made this yarn unnecessary. Turning up to 100 per cent without a good solid *all clear* is *very* poor headwork too, especially pointin' that pipe down the deck. This is a real good way to blow the flight deck crew over the side like a bunch of autumn leaves and give the rescue helicopters *lots* of business!

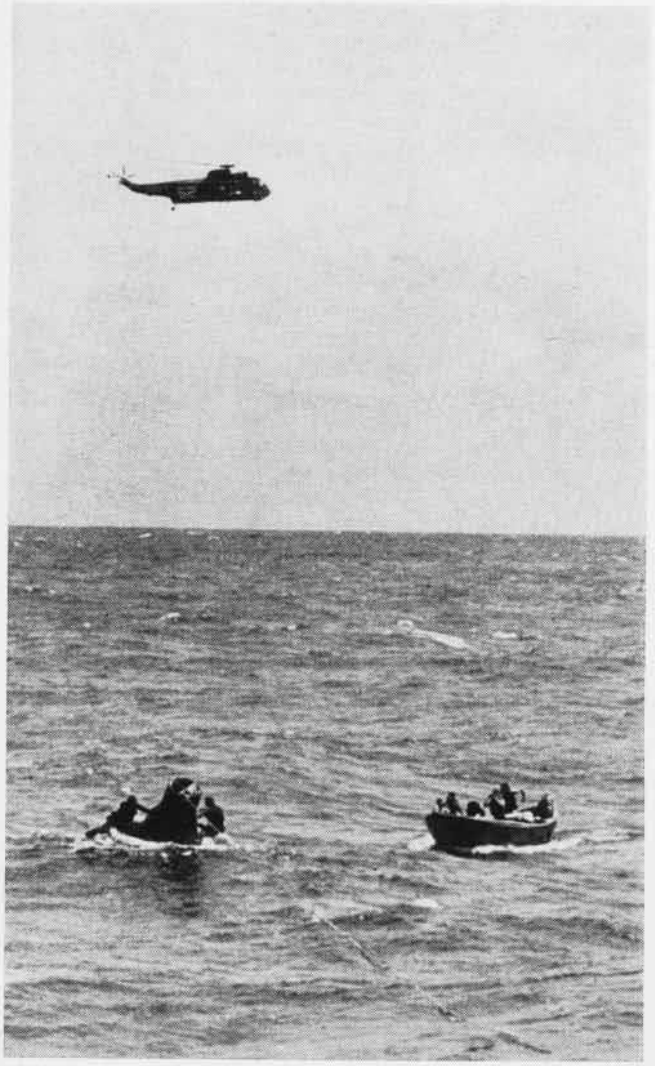
MAY 15
1963

#2 FOR BIG 'KAY'

A PARACHUTE blossomed in the Pacific sky, and, on the recovery ship, USS *Kearsarge*, anxious men waited to play their role in the finale of Gordon Cooper's 22-orbit flight. Capt. E. P. Rankin's carrier and crew were ready.

At 1924 EDT, the "Faith 7" capsule splashed into the ocean 80 miles southeast of Midway and less than five miles from the ship. Helicopters, frogmen and personnel with countless functions went to work. At 2011, wearing a broad grin, the astronaut stepped from his capsule onto a red carpet laid on the *Big Kay's* deck and, amid robust cheers, walked toward sick bay for an examination.

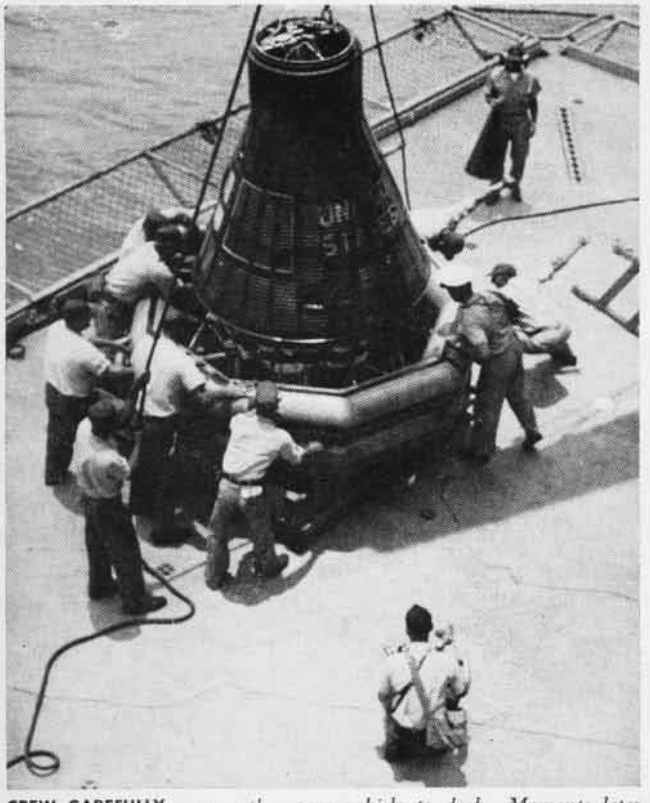
Like his predecessor, Cdr. Walter Schirra, Maj. Cooper was safely and expeditiously collected from the sea. The *Kearsarge* had again demonstrated professionalism in recovery.



HELICOPTER HOVERS *above as three frogmen attach a flotation collar to Faith 7 minutes after the spacecraft landed near the Kearsarge.*

CAPSULE IS GUIDED *toward the Kearsarge by frogmen and a boat crew. All the action took place within sight of observers on the carrier.*

FAITH 7 COMES *to rest on a solid surface again after 34 hours and 30 minutes in space as crane lowers it to deck of the Kearsarge.*



CREW CAREFULLY *secures the space vehicle to deck. Moments later astronaut Cooper actuated a plunger and blew open the escape hatch.*

PILOT GRINS *at personnel gathered around capsule after hatch was blown, marking end of journey during which Cooper flew 597,000 miles.*

HUNDREDS OF *Kearsarge crewmen packed island structure and other vantage points to cheer and see the astronaut emerge from spacecraft.*

TRIUMPHANT SPACEMAN *walks down Big Kay's red carpet, a two-foot wide, 25-foot long strip of painted canvas stretched out on flight deck.*

U.S. NAVY'S TEST PILOT SCHOOL AT PATUXENT

By Sam E. Polson, JOCA

ASTRONAUTS Shepard, Glenn, Carpenter and Schirra—thanks to long exposure before mass media cameras—gave the world a clearly defined image of today's Navy Test Pilot. Mass television exposure served to tell the public what Naval Aviation has known generally for many years: that aviators selected for test pilot training are "sharp," mentally and physically.

What the world saw were four well-groomed, exceptionally conditioned Naval Aviators who told their space flight stories in articulate lay language, but who were able to lapse into technical engineering jargon when the occasion demanded.

As four of the 800-plus graduates of the U.S. Naval Test Pilot School, NAS PATUXENT RIVER, the astronauts have progressed to the ultimate position in today's top American space project. To reach this pinnacle, they first had to be among the best pilots in the Navy. As this country's "most experienced" astronauts, they will naturally become the teachers for future generations of space pilots.

Graduates of TPS—while not required to be engineers—must be able to tell the engineers in their own language what is right and wrong about an aircraft (or a spacecraft) from the aviator's point of view.

To do this, a naval test pilot must be an aviator, engineer, analyst, reporter and part-time scientist all rolled into one. Only then can he claim membership in the exclusive fraternity of U.S. Naval Test Pilots.

But how does a Naval Aviator break into these exclusive ranks? Certainly not as a fledgling pilot. He must first of all be a topnotch flier with a solid background of operational experience. Fifteen hundred hours of flying time is usually considered a minimum. He must also be a volunteer.

From the list of voluntary applicants nominated by Fleet aviation commands, a selection board hand-picks ten naval fliers for each class of the U.S. Naval Test Pilot School, located at the Naval Air Test Center, Patuxent River, Md. The remainder of each 15-man class is made up of two Marine Corps fliers and three Army, civilian or foreign pilots. Representatives from the Bureau of Naval Weapons, Bureau of Naval Personnel and NATC serve on the selection board.

TPS classes convene in March, July and November each year and run through eight gruelling months of some of the most concentrated schooling found anywhere. This rugged course is divided into academic and flight syllabus phases with half of every school day devoted to each phase. A specialized rotary wing flight syllabus was added in 1961 for pilots whose operational experience has been limited to helicopters.

The academic phase includes the study of aerodynamics, aircraft and engine performance and a variety of other aeronautical engineering subjects. Short review courses in algebra, trigonometry, calculus and mechanics are presented first. These opening courses prepare the student test pilot for the more advanced studies that will follow, and such an introduction also helps channel his study habits in the right direction.

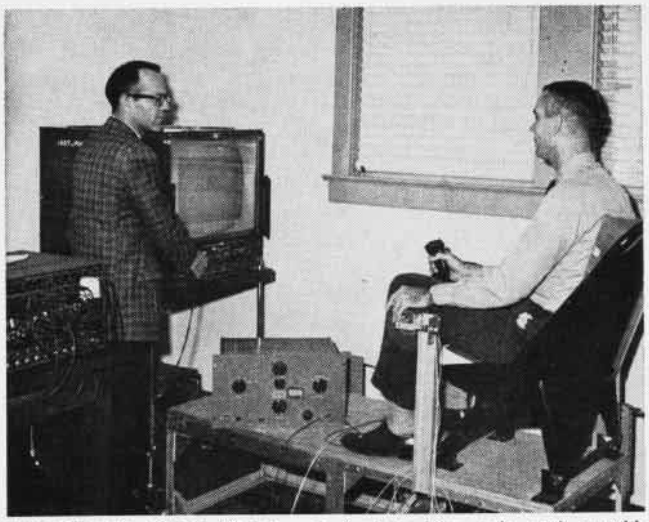
Each half day allotted to the flight phase includes the planning, flying and reporting of syllabus test flights. Pilots average about 20 hours of flying per month. Test flights cover such subjects as airspeed calibration, power available, sawtooth climbs, buffet boundary and turning performance, maneuvering stability, transonic characteristics and spins.

The stable of TPS aircraft includes one or more of the following aircraft: T-1A jet trainer; T-28B reciprocating engine trainer; F-8 jet fighters; F-6A jet interceptor; AF-1E jet light attack plane; HU-16C twin-engine amphibian; S-2A twin-engine anti-submarine aircraft and the SH-34G helicopter. In addition to these, students occasionally have the opportunity to fly other models assigned to the three NATC test divisions.

Also available is a variable stability airplane, used to enhance the training in stability and control. Use of this type airplane as a supplement to classroom and simulator instruction has been pioneered by TPS. Variable stability airplanes were originally used only for research and development flying. For TPS classes, a variable longitudinal stability B-26 is utilized under contract by BUWEPS with the Cornell Aeronautical Laboratory in Buffalo, N. Y. By appropriate settings of cockpit knobs for variable stability and control, the B-26's stability characteristics and response to control inputs

(Continued on page 10)

ACADEMIC WORK *carries over into post-flight data analysis. Students get ample opportunity to deal with engineer's terms and problems.*



STUDENT TEST PILOTS *"fly" longitudinal tracking tasks with variable "airplane" response on simulator. Scope can also display response.*

FLIGHT LINE *at Navy's Test Pilot School covers a wide range of propeller and jet aircraft types and keeps up to date. F-1C Fury and F-11A Tiger shown here, have been replaced by AF-1E and F-8 Crusader as the older types have been phased out of Fleet operational service.*

FEATURE OF TPS *curriculum is an industry visit. Student group poses with mock-up of Chance Vought's XC-142 tri-service VTOL transport.*

LCDR. SCOTT CARPENTER, *a TPS graduate like other USN-USMC astronauts, presents wings carried in orbit to Cdr. Birdsall, past TPS C.O.*

can be varied, ranging from those of a large transport airplane to those of today's supersonic jet fighter—and beyond. Unstable characteristics can also be demonstrated in flight. Addition of this airplane to the training curriculum has done much to make it easier for student test pilots to talk the engineers' language, and mutual understanding has been improved.

For those who are not qualified, a special jet transition course, including both ground and flight instruction, is part of the program. Generally, students go through this course before beginning the regular curriculum. For jet pilots, flying the prop-driven *Tracker* or *Albatross* can also be a new experience.

The ground and flight "classroom" curriculum is supplemented by special symposiums. Speakers are drawn both from naval and other government establishments and from industry. They are exceptionally well qualified in one of the many areas which a Navy test pilot's work can be expected to touch. At the close of each course, a group industry visit introduces the graduates to many of the people and companies with whom they will deal during their tour as test pilots.

There are eight Naval Aviators on the TPS staff, all graduates of the school. Currently the school director is Cdr. Edward M. Porter. Several civilian academic instructors, two aircraft maintenance officers and six clerical assistants round out the roster.

One of the civilian instructor spots is rotated among the aircraft companies on an annual basis. It is a much sought-after tour of duty by outstanding aeronautical engineers in the industry.

In its present status, TPS is a far cry from its modest beginning as a nine-week indoctrination course in 1945. At that time, with the Test Center at its peak of expansion, burdened by a staggering load of new model wartime aircraft, the need for test pilots was paramount. Fleet aviators, although highly trained in operations, strategy, tactics and maintenance, were found to have only scant knowledge of the specialized techniques mandatory in actual flight testing. This semi-formal course was then known as the Flight Test Pilot's Training Division.

Through the efforts and recommendations of RAdm. F. M. Trapnell, the Navy's first jet pilot, and Cdr. Sydney

UNUSUAL FORMATION *has TPS HU-16 leading three jets, including supersonic Crusader.*

S. Sherby, first director of the school, this indoctrination class was expanded into a five-and-a-half month Test Pilot Training Division (TPT) course in 1948. In 1958, TPT officially became known as the U.S. Naval Test Pilot School.

Thirty-three classes of new test pilots have been graduated since 1948. Some 800 students have successfully completed the school and have been assigned subsequently to test pilot billets. Navy and Marine Corps pilots finishing TPS are usually assigned to one of NATC's three test divisions: Flight Test, Service Test and Weapons Systems Test.

The total job of the Naval Air Test Center is divided among these divisions. Flight Test Division is responsible for testing and evaluating the airframe from the standpoint of structural, carrier suitability and flight dynamics characteristics. Service Test covers over-all service suitability and places special emphasis on power plants, maintainability, pilot's equipment and aeromedical aspects. Weapons Systems Test is responsible for avionics systems, electrical systems and armament.

While most of the "book learning" in TPS is directed toward the work of the Flight Test Division, this is not done to de-emphasize the work of the other divisions. In testing and evaluating the airplane, however, the pilot is riding in and testing the same object—the aircraft he's flying. To get across to engineers the good and bad points of the aircraft, he needs to understand in detail the characteristics under investigation, be able to evaluate them both by themselves and in connection with other related characteristics, and be able to get his points across to Navy and company engineers.

For all divisions, TPS training emphasizes two primary objectives for NATC test pilots: precisely flying to the test requirements of every type of test and evaluating the aircraft and its equipment as a service article for general Fleet use. This dual objective establishes the need for TPS. Rather than establishing a corps of permanent Navy test pilots, the need to reflect the operational viewpoint dictates a continuing flow of outstanding Fleet pilots into NATC ranks. TPS provides them the specialized knowledge necessary to deal with the engineering aspects.

As has already been pointed out, many of the men on past TPS graduation rosters have risen to the threshold of greatness. Of the seven Project *Mercury* astronauts, four were TPS trained. Of the nine selected in 1962, three were Navy test pilots. Scores of others, while never lauded in international headlines, play major roles in every phase of current Naval Aviation activities. They have a thorough understanding of the Navy's current complex aircraft which can be of great benefit in any operational problem or situation which may arise.

Owing to the rapid advances in the field of aviation, TPS curricula and aircraft complements have undergone frequent modernizations. As man and his inventions edge further into the space age, these modernizations will, undoubtedly, become more radical and complex, and so, too, will the jobs of the test pilots.

For the present and the immediate future, though, TPS will continue to play a role essential to *this* planet. That role will be to insure Naval Aviation's ability to carry out its mission. As long as naval aircraft and pilots are needed to help protect the free world, there will always be an important spot which must be filled by the Navy test pilot. It is his job to make sure the Fleet's planes are the best possible and that they stay that way.

NATOPS SENSE

NATOPS MAKES SENSE IN STYLE

After

NO ART DETECTIVE is required to identify the illustrator of Naval Aviation Training's latest Sense Pamphlet. Robert Osborn, *Naval Aviation News*' illustrator of Grampaw Pettibone and Dilbert, leaves his mark on every page of *NATOPS Sense* (NavWeps 00-80Q-63) to delight and inform the reader as he gains insight in to the how, why and what of the standardization program as set forth by Richard Fuller, Naval Aviator in WW II and formerly an editor of *Naval Aviation Confidential Bulletin*. By precept, incident and exhortation in word and drawing, the team of Osborn and Fuller inaugurates another addition to the long and distinguished line of Naval Aviation's justly famed Sense Pamphlets.

This most recent one of some 50 such pamphlets the Aviation Training Division of DCNO(Air) has published bears witness to the reason these training aids have been both popular and effective. The "once-over-lightly" touch is again used to support a program which has been well thought out and is being fully implemented. The pamphlet sets forth the aims of NATOPS to convert those who may be tempted to prefer the status quo.

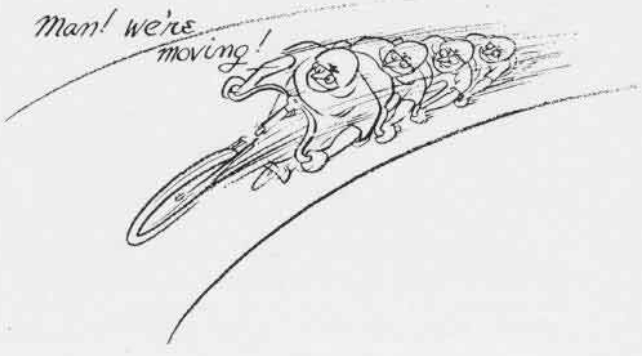
Describing NATOPS (Naval Air Training and Operating Procedures Standardization) as a big step forward, the author goes on to say: "NATOPS is going to require you to pay more attention to the book in your flying. This increased attention is going to make you a more effective commander of your particular weapons system and a safer one. What's more, sticking to the rules is not going to bruise your psyche or limit your individuality because the air bosses want you to help write the book."

The heart of the NATOPS principle is to "find the best way of performing every operation in naval flying from pre-flight to yellow sheet, train every pilot in the use of these methods, and make sure the methods and procedures are followed." No easy matter, but it is a goal that is being steadily approached. It was recognized at the start of the program that there was a danger "that the desk jockeys would get in the saddle and ride rough-shod over those actually doing the flying." To make sure that this would not happen, the guiding principle was established that "manuals will be prepared by the users and kept current by the users."

Of course, there is always some one who doesn't get the word. Dilbert is still with us. Surrounded by stacks of comic books, he has yet to hear about NATOPS. When he does, he is going to have to hit the books, take written exams and get checked out.

The entire program is given a clear run-down in NATOPS Sense, emphasizing the role of the users and their stake in the program. A word of warning is given: "NATOPS cannot accomplish its ends without your full participation, and, man, if you ignore NATOPS, you're going to be left at the post.

"You were made for each other."



NEW JET-POWERED *UH-2A helicopter is shown in flight. Built by the Kaman Aircraft Corporation and designed as a replacement for the 12-year-old Vertol HUP, the UH-2A joined HU-2 in December of 1962. The squadron now has the capability of making all-weather rescues.*

HU-2 Celebrates 15 Years of Service

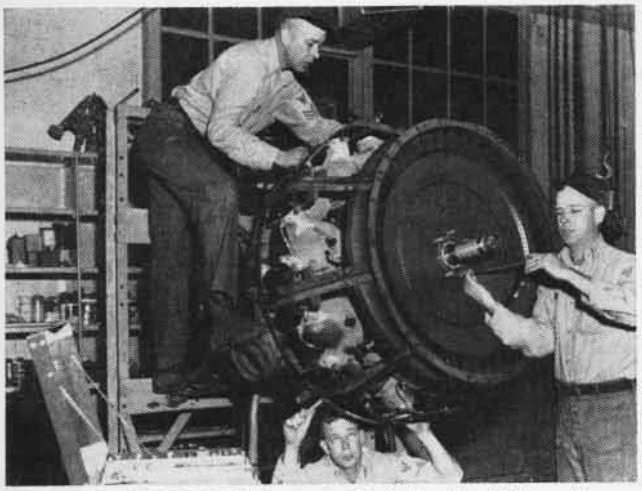
RESCUE IS THEIR BUSINESS

HELICOPTER UTILITY SQUADRON TWO (HU-2) based at NAS LAKEHURST, N.J., entered its sixteenth continuous year of commissioned service in April. Ceremonies marking the event included a pass-in-review which was observed by Cdr. A. C. LeFevre, HU-2's C.O., and John W. Brillhart, AD1, who joined the squadron in October 1948 for the first time and has served a total of 11 years with the unit.

Home-based at Lakehurst since its

FUTURE CREWMEN *of HU-2 undergo intensive training in all phases of rescue work. Here, E. M. Hopp, AMS3, lectures men on the Mae West.*

AN OLDER HUP, *dependable workhorse for HU-2, lifts off the deck at NAS Lakehurst while Kaman helicopter turns up in the background.*



COMPOSITE PHOTOGRAPH *depicts J. W. Brillhardt, AD1, working on an engine. Brillhardt has spent 11 of 15 years Naval service in HU-2.*

NEARLY 90 YEARS *of Naval service is represented by these ex-AP's flying with HU-2—LCdr. Denny, Jr., Lt's. Heim, Gilpin and Shockey.*

commissioning on April 1, 1948, HU-2 provides helicopter rescue and utility service aboard aircraft carriers and other ships of the Atlantic Fleet. Any pilot who has recovered or launched from a Second Fleet flattop is familiar with the "hovering angels" and their constant vigil from plane guard positions during ships' flight operations.

More than 600 sea rescues of downed airmen have been made by HU-2 crews. Not included in this total are the numerous personnel picked up by helicopters during disasters like the recent floods in Morocco and the March storm of 1962 which devastated the New Jersey coast.

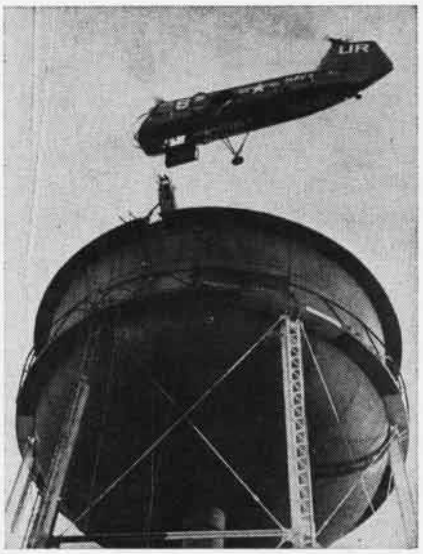
Not as well known but of equal importance are the utility services HU-2 provides for the Fleet. These entail mail delivery, personnel transfers and radar calibrations.

Pilots at Lakehurst are put through an intensive flight syllabus designed to prepare them for all phases of rescue and utility missions. Crewmen are trained in the Squadron Helicopter Air Rescue Crewman School prior to deployment aboard ship. Simultaneously, continuous research in the field of rescue methods and equipment is carried on. The three-pronged rescue seat currently in use is a result of such research.

With the advent of the UH-2A Kaman jet-turbine-powered helicopter in December of 1962, an additional responsibility was given the squadron. The new aircraft, designed to replace the 12-year-old UH-25, provides the unit with an all-weather rescue capability. Last spring, the Kaman made its first rescue when the survivor of a light plane crash near Atlantic City, N.J., was transferred from the accident site to a hospital in Millville.

Not all personnel attached to the Lakehurst squadron have had the chance to travel. Since its beginning, however, HU-2 crewmen have participated in operations throughout the world, including the Atlantic Ocean, the Antarctic, Korea, the Mediterranean and the Caribbean. In today's mobile Navy there is an increasing need for the versatile helicopter. HU-2 makes every effort to answer that need.

DESTROYER SAILOR *in need of advanced medical attention unavailable on his own ship is airlifted in stretcher to the aircraft carrier, Independence (CVA-62), by a helicopter from HU-2.*



INJURED WORKMAN *stranded on a water tower is hauled to safety by a UH-25 from HU-2.*

Novel Radar is Readied

Pilots can Make Blind Letdowns

A Navy A-4C *Skyhawk* was used in the first military evaluation of the terrain-following radar developed by General Dynamics/Electronics of San Diego, Calif. The first series of evaluation flights at low altitudes was made in the San Diego area.

More recently, in May, the *Skyhawk* was again used in a 60-day evaluation program of the system, which was undertaken at NATC PATUXENT RIVER, Md. For the trials, the 40-pound compact system was mounted in a pod under the fuselage.

The system is designed to aid aircraft or drones to fly safely at low altitudes across any surface without visual reference to the terrain. In military applications, even under conditions of zero visibility, the pilot will be able to escape detection by early warning radar by flying so low that such devices could not detect the aircraft.

To use the system, the pilot selects an altitude at which he wishes to clear the terrain. In flight, the radar detects ground obstacles which appear ahead of the aircraft. Information from the non-scanning radar is fed into a computer which at the same time is receiving continuous data from the aircraft radar altimeters on the height above ground. The computer determines the action necessary to maintain the altitude above flight path obstacles.

The computer generates a climb or descent signal which activates an indicator instrument for manual flight or to the autopilot for automatic flight operation. Both methods were evaluated in the tests.

By setting the system to keep his aircraft above all obstacles, the pilot can avoid collisions with obstructions. The system will also permit letdowns through cloud cover to non-instrumented airfields. It would act as a safety device for a pilot who drifts off course over unfamiliar mountains during foul weather.

GCA Unit is Always Ready

Serves Many Aircraft and Countries

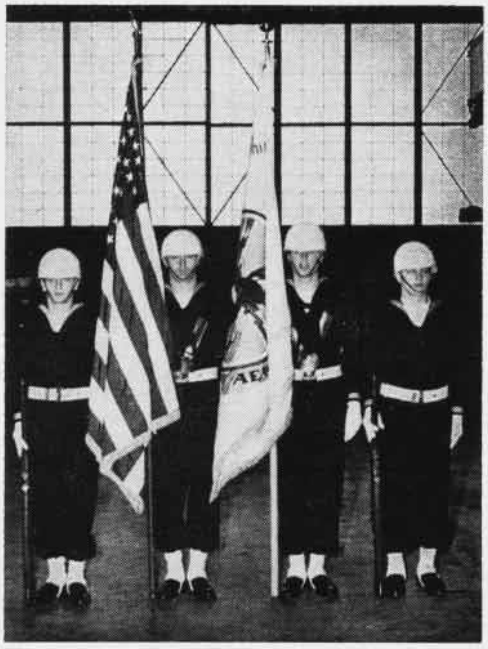
Personnel of GCA Unit 23, stationed at NAF NAPLES, Italy, probably have more variety in their operations than any other GCA Unit in the Navy. They have controlled as many as 33 different types of aircraft in a month, ranging from DC-8's, *Comets*, and the newest and fastest military jets to helicopters and T-6's flown by civilian and military pilots from the U.S., Canada, Denmark, France, Germany, Great Britain, Greece, Italy, the Netherlands, and Turkey.

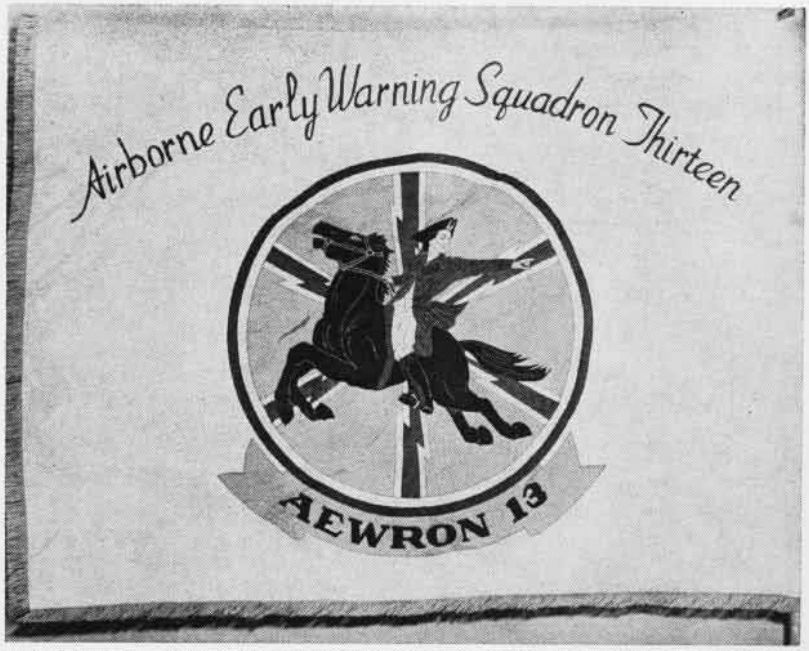
The facility is located at Capodichino airport, the only airport serving the Naples complex, and has long been the only approach with operationally acceptable minimums.

The unit, available 24 hours a day for practice or IFR runs, is equipped with IFF/SIF and UHF/VHF direction finders. It has provided a helping hand to many an aircraft which was low on fuel or had become lost because of failure of its navaids or inability to pick up the Naples radiobeacon in a thunderstorm.

One of the most appreciated services rendered by the GCA personnel is that of interpreter for those Fleet pilots whose ears are not yet attuned to the differences in English as spoken by Americans and Italians. GCA men are experienced interpreters.

LCdr. J. F. Harrison is the officer-in-charge of the GCA unit. Capt. D. S. Crockett commands NAF NAPLES.





IN CEREMONIES *aboard NS Argentia, Nfld., Lt. Rex. A. Maddox, Welfare and Morale Officer for Airborne Early Warning Squadron Thirteen, made the presentation of a new flag to the Color Guard. Capt. M. P. Bailey, C.O., welcomed commanding officers of all units stationed at Argentia and said, "To the best of our knowledge, AEWRon is the first in Naval Aviation to have an individual unit flag." The gold-fringed flag is identical in size, four-by-five-feet, to the National Ensign the squadron carries. The insignia, depicting Paul Revere's famous ride, is appliqued on white nylon. The background is sky blue, pierced by six red thunderbolts. These indicate the use of electronic aids in accomplishing the squadron's modern "Minute Man" role as it carries out its mission on the seaward extension of the Distant Early Warning Line.*

AVIATORS LEARN SEMINOLE TECHNIQUES

EXPERT JOHN STREET DISPLAYS RATTLER

LCDR. FRED KELLY, MC, STUDIES SNAKE

STREET EXPLAINS SKINNING PROCEDURES

SNAKE MEAT, NOW SKINNED, IS READY TO BE PLACED IN THE FIRE

A SEMINOLE-TYPE FIRE IS USED BY PILOTS TO ROAST THE MEAT

LT. JAMES BASSETT ENJOYS FIRST BITE

M-M-M-M-M-M-M-GOOD!

MODERN ATTACK pilots from VA-44 and VA-45, NAS JACKSONVILLE CRAG squadrons, are learning some old but invaluable tricks passed down through the years by Florida's Seminole Indians. Since flights send the aviators over wide ranges of Georgia's Okefenokee Swamp and the broad Everglades of Florida, a field trip designed to familiarize pilots with survival procedures in these snake-ridden swamp areas has been added to round out the training syllabus.

Groups of flight students and instructors spend a weekend at Ross Allen's reptile institute near Silver Springs, Fla., where experts on Seminole land survival techniques emphasize methods of protection against each of the area's six types of poisonous snakes. Rattlesnakes receive particular attention and trainees learn not only how to defend themselves but also how to skin the snake to make a meal.

Saga of the African Queens

AN AIRPLANE FOR PRETORIA

THE WORK of the U.S. Navy ferry pilot—the Naval Aviator who delivers new and old aircraft to the Fleets—is considered to be fairly routine. "Just pick up your bag and go." Of course, learning the flight procedures of all the Navy's aircraft types is non-routine, for the ferry pilot often finds himself jumping into a Mach 2 jet right after bouncing out of an aging transport. The ferry pilot is an improvisation expert. He learns to stay a step ahead of his laundry and whatever airplane he happens to be flying. Sometimes even an earthquake fails to "shake" him, so varied have been the obstacles. And this is a story of such a ferry job.

'The ferry pilot is an improvisation expert.'

SOME FERRY jobs one never forgets. One of them was such a combination of flight, frustration, fruitless postponement and final success that it will always remain a long chapter in the annals of Aircraft Ferry Squadron 31, home-based at NAS NORFOLK.

In a modern version of *A Message to Garcia,* a crew of officers and men of VR(F)-31 was given an assignment: "Take this aircraft to Pretoria, South Africa." The execution of this simple order was to involve such rigors as to give new meaning to the phrase, "dedication to duty."

Not only was the crew to take C-47 #17275 (R4D) to the Naval Attache at Pretoria, but they were to fly back C-47 #17269. The assignment came one hot day in Norfolk about the first of August.

LCdr. Bertram "Deacon" Barker was an old hand at delivering airplanes. He had flown over 170,000 miles the first year and a half he was with VR(F)-31. His copilot, LCdr. William N. Perry, was leaving a bride of less than a year and a new son. He was certain he'd be back September 21 for his first wedding anniversary.

The navigator and relief pilot was Ltjg. Daniel Baba. "Hajji," so called in honor of his Middle Eastern ancestors, immediately started to grow a full beard. His fellow crew members assured him they would furnish the camel and take pictures as he rode around the Great Pyramids of Egypt.

Radio duties were handled by R. A. "Blinky" Buchman, ATC, who with VR(F)-31 had flown over 200,000 miles delivering aircraft. The sailor with the headaches of trying to keep the plane flyable was "Dyke" H. Dychman, ADC. He was to be assisted by John W. Armbruster, AD2, who doubled as plane captain.

On August 4, LCdr. Barker gathered his crew aboard the C-47, which was destined to become *African Queen III,* and started the trip. "Started" is the word, for the *Skytrain* got no further than NAS QUONSET POINT, R. I., when it was downed for radio repairs. Chief Buchman and the Quonset radio crew worked until midnight to get the radio working again.

'LCdr. Barker gathered his crew.'

Then off to Argentia, Newfoundland, the next morning! On landing there, all the gear appeared to check out, so the plane was gassed to capacity for the flight to Lajes, Azores.

But it was not to be—at least, not on August 6. During a pre-flight inspection, the plane captain discovered a leak in the starboard tire. There being no new tube in Argentia, a call was put in to Harmon AF Base. Yes, they had the needed tube. A station aircraft set off, but was unable to land because of weather and had to return. Meanwhile, the crew of *African Queen III* had pulled the wheel to get ready to change the tube. This really tore it—several cracks were discovered in the brake drum.

Dispatches were sent at once for a new brake assembly which had to come from the States. After three days, a wheel assembly arrived, BUT it was the wrong assembly. Many messages and five days later, the right assembly arrived and was installed.

On August 16, the *African Queen III* left Argentia for the Azores. Banking on the theory that after so much bad luck, happy days lay ahead, the crew consoled themselves that they were ONLY ten days behind schedule and had worked off enough gripes on this bird to last the trip.

And, indeed, the theory had some

Travelogue by
Cdr. B. Carroll, USN

support in that they managed to get to Naples the 18th of August. They'd had an RON at Rota and greeted Capt. Camerson, formerly their skipper and now C.O. of NS ROTA.

The plane was put in check at Naples prior to its departure for Capetown. A vibration in the port engine led to a prop change. Then, in accordance with the seeming SOP for the trip, the wrong prop was installed. There was nothing for it, but to make another prop change. By working around the clock for five days, the crew managed to make the C-47 airworthy again. But by this time, the diplomatic clearance for the flight through the United Arab Republic had expired.

Waiting for the clearance to arrive, the crew went sightseeing. When Naples was rocked by three earthquakes, no one on the *African Queen III* was surprised. By now, it took more than earthquakes to shake them.

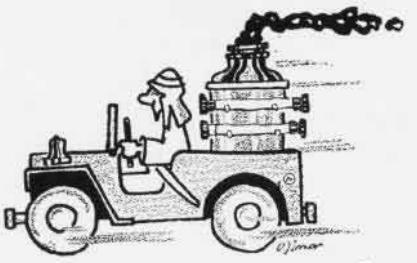
The wheels went into the well on September 3, and the C-47 headed for Africa. After a fuel stop in Athens and a trip down the Nile, a successful landing was made at Cairo.

"Sheik Hajji" Baba's beard was in full bloom by this time, and delays in going through customs may be explained by his appearance; however, Hajji firmly denies this.

African Queen III left Cairo, flew across the barren desert, broken occasionally by the snaking Nile, to Port Sudan on the Red Sea, and was refueled. Although this was a small sand field—a jeep served as a fire truck—and temperatures were over 100°, *African Queen III* was serviced fast.

On the leg of the journey that followed the Red Sea from Port Sudan to Charmaksar Airport, Aden, the latter part of the flight was at night and the instruments had to be illuminated. Although the instrumentation was new, the lighting system was not. The pilots managed to hold flashlights between their knees, and the plane captain held an auxiliary flashlight.

On the flight the next day from Aden to Mombasa, the equator was crossed with appropriate ceremonies, and Pollywogs joined the Ancient Order of the Deep. Mombasa is a beautiful, quiet village and seaport in Kenya. Old Fort Jesus, in the older section of town, once kept a silent,



'A jeep served as a fire truck.'

watchful guard over the port. Ships, called "dhows," still sail the spice routes to the Persian Gulf as they did in the days of Vasco da Gama, an early explorer the village knew well. Like sailors from time immemorial, the crew found their funds low at this point. Messages to the United States brought advance TAD payments and the crew was solvent again.

On September 6, the C-47 left for Capetown with en route stops at Salisbury and Pretoria. The South African AF Base, Waterkloof, serves Pretoria as well as Johannesburg and is near both. The Naval Attache to Pretoria had asked the pilots to stop at Waterkloof and pick up a passenger for Capetown. His office is in the American Consulate's office at Capetown, near Yesterplast airport. After chasing the birds off the field, the pilot landed on the rough grass at Yesterplast and the aircraft was turned over to the Naval Attache to Pretoria. The first half of the journey was over.

The aircraft the crew was to return to the United States was down in a grass field south of Johannesburg after losing an engine. Ten days work on

'Weather was another problem. . . .'

Illustrated by
Lt. Neil F. O'Connor, USN

the aircraft—and on diplomatic clearance—and the *African Queen II* was ready to go.

The return trip was the same route in reverse that the crew had followed to Capetown. The C-47 left September 17, powered by a new questionable engine and one tired one that never seemed to develop any "get-up-and-go." Pessimistic weather forecasts never proved correct, favorable winds prevailed, and the trip back began to look like a breeze.

On September 20, the crew arrived once again in Cairo where the tired old C-47 was parked beside a Russian jet. Since the arrival was three and a half hours before sunset, everyone anticipated getting some pictures of the Pyramids and the Sphinx with "Sheik Hajji" Baba in the foreground astride a camel. But a delay in customs kept the crew at the airport until sunset, so the picture was never taken.

By the 21st, the old C-47 was in Naples and went into check. Bill Perry's first wedding anniversary was celebrated in typical ferry pilot fashion: he called his wife on the telephone.

The check was completed and the discrepancies were worked off in four days. Some bad weather was forecast for the flight to Rota, Spain, but the crew headed west on the 25th. The bad weather turned out to be a line of thunderstorms. As the plane dodged and ducked its way through them, all the sense antennas for the bird dogs were torn from the plane. Chief Buchman jury-rigged the bird dogs to the trailing wire antenna and obtained a bearing. Landing in Rota was routine.

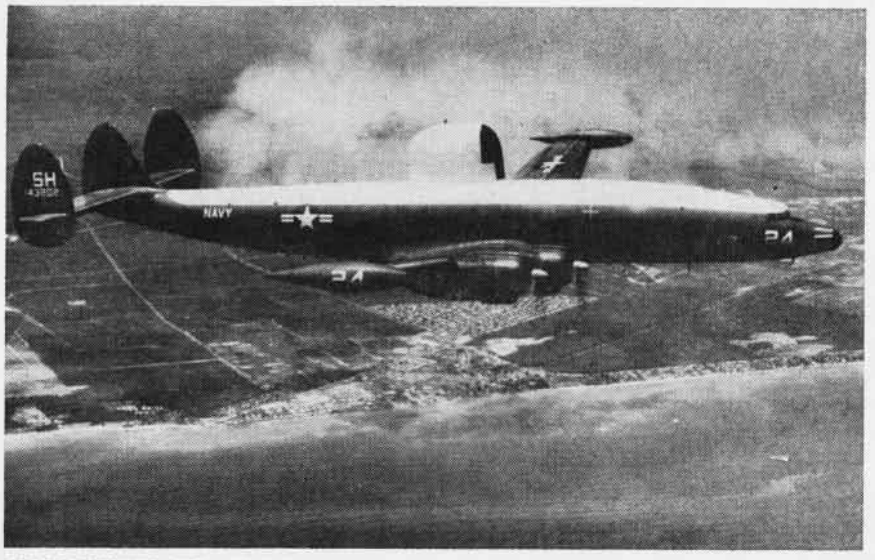
A pre-flight check of *African Queen II* the next day showed an engine change was necessary. A new engine was brought from Port Lyautey. On the morning of October 1, the flight was made to the Azores.

Another day was lost waiting for the en route winds to quiet down. On October 3, the crew reached Argentia and on the 4th, Norfolk.

Sixty-two days on the road! All the wooden carvings, camel saddles, fertility goddesses and dirty clothes were unloaded and the trip was over.

One crewman said, "Never again!" But three days later, the crew was on the road again, fulfilling VR(F)-31's principal mission, "the safe and expeditious delivery of U.S. Navy aircraft."

BARRIER UNIT TRAINS JUNIOR OFFICERS



RADAR-EQUIPPED EC-121K FLIES PACIFIC BARRIER OFF THE COAST NEAR BARBER'S POINT

CLAIMING TO BE the Navy's "largest and flying-est operational squadron," Airborne Early Warning Barrier Squadron, Pacific, offers outstanding promotion and training opportunities for junior officers.

Capt. John E. Mishan, Commanding Officer of the squadron, says, "We are proud of the record achieved by hundreds of junior officers who have been assigned to the squadron since its formation. We are on the alert to constantly improve the training program. Junior officers assigned to Airborne Early Warning Barrier Squadron, Pacific, can look forward to rapid advancement and the opportunity to participate in as fine an aviation program as can be found in the Navy."

Located at NAS BARBER'S POINT, with a large detachment on Midway Island, the squadron has approximately 360 officers and 2000 enlisted men. Normally, about 200 officers of the rank of ensign and lieutenant (j.g.) are on board assigned as Naval Aviators, Naval Aviation Observers (Radar) and Naval Aviation Observers (Navigation).

Most CIC officers and navigators are below the rank of lieutenant. These junior officer/Naval Aviators comprise over half of the unit's pilots. The squadron's training program fully qualifies these men in their specialties within three months after reporting for duty. Heart of the training program is a short formal course in the officer's specialty. This means a variety of subjects is available in order to meet the needs of the various officers.

CIC OFFICER WITH NAVIGATOR TRAINEE

The majority of Naval Aviators who are junior officers qualify as AEW aircraft commanders within the first two years aboard, and over a third of the 36 operational flight crews are commanded by Ltjg's. At one time, it was thought that only second tour aviators of the rank of commander or lieutenant commander would be suitable as AEW aircraft commanders. Experience has disproved this theory.

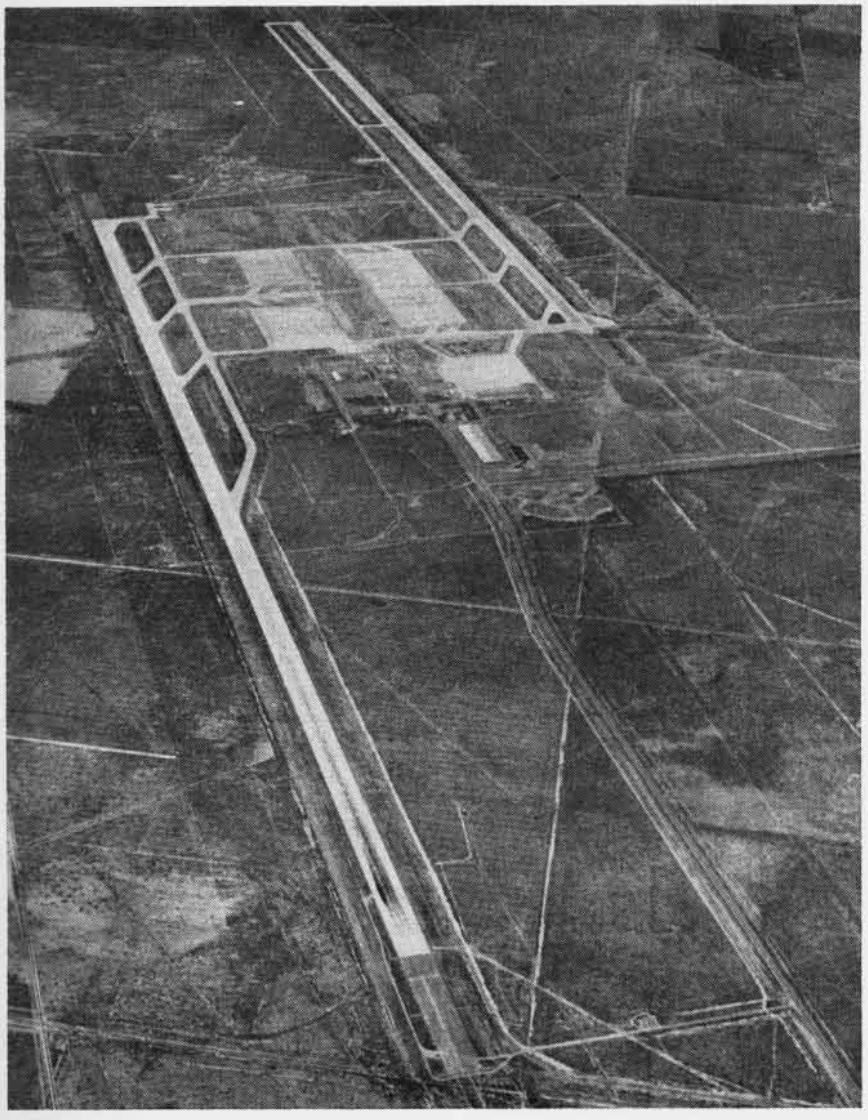
Flying the radar-equipped EC-121K *Warning Stars* on around-the-clock barrier patrols from Midway Island to the Aleutians, the squadron is an integral part of the air defense of the United States and Canada and averages more than 52,000 flying hours each year. Over 13,000 barrier patrols, averaging 14 hours each, have been flown since the Pacific Barrier was formed in 1958. The unit has flown over 100,000 continuous accident-free hours, and in 1962, won the CNO Aviation Safety Award.

These topnotch junior officers have fared well in promotions, with nearly 100% record of promotion to Ltjg., and Lieutenant. In 1962, over 100 junior officers were advanced in rank.

THIS AEW BARRIER-QUALIFIED CREW HAS FIVE JUNIOR OFFICERS AS PLANE CREW LEADERS

LEMOORE HAS THE FORWARD LOOK

OPERATIONS AND HANGAR AREA AT LEMOORE. NOTE UNDERPASS AT RIGHT OF THE TOWER



PARALLEL RUNWAYS, EACH 13,500 FT. LONG, MAKE FOR A SAFE FLOW OF HEAVY AIR TRAFFIC

IN OFFICIAL LANGUAGE, the mission of Naval Air Station, Lemoore, Calif., reads: "Support of fleet carrier squadrons occupied with the task of operational training of personnel and maintaining proficiency of already qualified personnel to form first-line, combatant, aircraft carrier squadrons." To the people who live and work at Lemoore, this means: Lemoore was planned from below the ground up with a single purpose—to maintain operating squadrons in the fastest, the safest, the most efficient, and the most economical manner possible. To the squadrons assigned to Lemoore, it means a home station that is as close to perfect for efficient flying as any they've ever seen.

What was flat farmland some five or six years ago is now a well-organized, efficient and easy-to-live-on naval air station. Its 32,000 acres are occupied by barracks, warehouses, Capehart housing in a *cul de sac* arrangement, and modern facilities of all sorts—all designed for comfortable living and working.

This is a master jet base with many planes moving in and out hourly. The six miles that separate the operations area from the living area are miles that are greatly appreciated: they muffle the jet screams to pleasant silence.

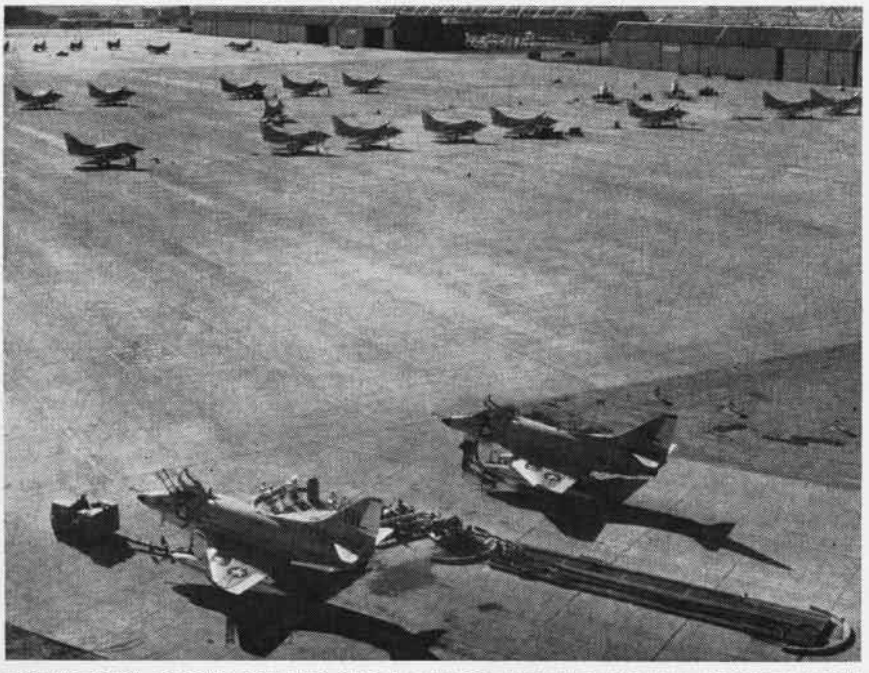
Representing an expenditure of 100 million dollars, Lemoore's facilities are designed to handle the latest carrier-based jets. Upwards of 275 planes, plus 30 pool aircraft, are assigned to this NAS—the Navy's largest.

Creature comforts are important, and they have been provided for in

PILOTS LEAVE AIRCRAFT AFTER TAXYING TO FUEL PITS WHERE WAITING CREWS REFUEL AND THEN TOW THEM TO SQUADRON LINE

many ways on Lemoore. But to members of an operating squadron, the facilities provided for the planes are of much greater importance. It is these facilities, the fruit of more than five years of planning, that largely make NAS LEMOORE the Navy's "airfield with the forward look." It is these facilities that make a squadron like VA-55 put itself on record: "I live as a tenant at NAS LEMOORE. I fly, instruct, eat and play at the world's finest NAS."

The layout of Lemoore's two staggered 13,500-foot runways (compared with the 11,500-foot-long runways at Dulles International Airport, Washington, D. C.) is a good example of the absolute marvel of speed, efficiency and safety that has resulted from specialized planning. Runway 32 Left, the primary landing runway, has high-speed turnoffs leading directly to the ramp area. For a minimum of taxying, which is of great importance to high fuel consumption jet aircraft, the end of 32 Right, which is used primarily for takeoffs, is located adjacent to the tower and the ramp.

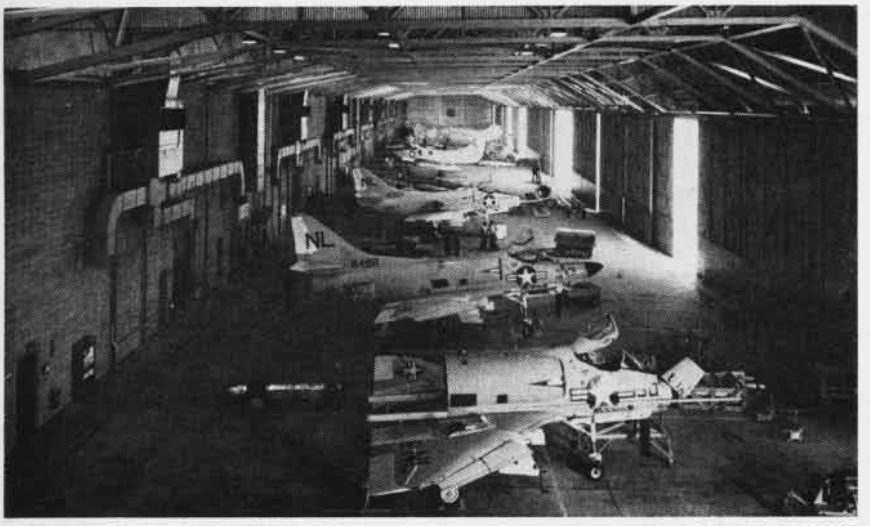


CONVENIENTLY LOCATED FUEL PITS HELP TO REDUCE TURN-AROUND TIME FOR NEXT FLIGHT

Three taxiways connect the two runways and the ramp area. Inbound and outbound aircraft are controlled on separate tower frequencies, and the runways have their own traffic patterns, left and right respectively, which operate without interference from the other. Takeoff delay because of landing traffic has diminished almost to the vanishing point.

To insure fast aircraft ground traffic flow, the vehicular entrance to the control area is through an underpass over which passes the taxying aircraft.

Mirror landing practice is conducted on Runway 32 Left, which is equipped with carrier-deck lighting on the approach end. As a part of squadron predeployment training, the runway lights are turned off on Runway 32 Left at



AT LEMOORE, DAY AND NIGHT MAINTENANCE IS PERFORMED IN WELL EQUIPPED HANGAR

THIS HANGAR DECK HOUSES POWER OUTLETS

times during the night MLP's, leaving an outline of carrier-deck lighting.

With the recent establishment of the Oakland positive control area, most approaches are now monitored by random (longer range) radar to a GCA hand-off. NAS LEMOORE instrument approaches are handled by a Radar Air Traffic Control Center (RATCC), located in Operations itself. The unit provides random radar approaches and monitors TACAN and ADF approches and IFR departures.

Installation of closed circuit TV in the ready rooms is a refinement that, by cutting down on time spent getting to and from meteorology, allows more briefing and pre-flight inspection time. The television circuit transmits all necessary meteorological information for routine briefiings and for filing DD-175 flight plans.

The servicing department embodies many attractive features, some of which are really innovations. Aircraft underground fuel pits are located adjacent to the ramps, thus providing high-speed refueling and a consequent reduction in turn-around time. Returning aircraft are taxied into the pits, shut down, refueled and towed by tractor to the line. Oftentimes this procedure is completed before the pilot has finished signing off his yellow sheet. The underground fuel pits also eliminate the need for fuel trucks, except for occasional de-fueling, and thus alleviate traffic problems in the area.

A 90-mile pipeline, built by the Navy, from Estero Bay to Lemoore provides 5,000,000 gallons of jet fuel per month from its tanker unloading facility at the bay. This pipeline insures an adequate and contaminant-free fuel supply.

The aircraft material support facet of operations is considerably simplified at Lemoore. Technical representatives from companies which build Navy planes are available for professional advice in supply matters. In addition, each hangar has an "O" module with a Fleet support store which stocks high usage items. AOCP time is sharply reduced as indicated by the increase in aircraft availability.

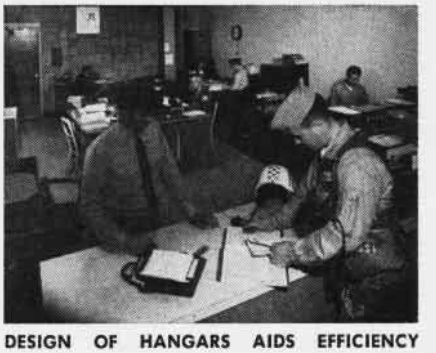
The hangars themselves are the most strikingly modern buildings on the station. Of "cantilever type" construction, the entire ramp side is free of supporting columns. Doors can be rolled back the full length of the hangars, leaving the ramp area readily accessible. Squadron lines have been located in front of their respective hangar spaces, a practical arrangement that has worked out well.

Contributing to the increase of efficiency and safety is the use of deck and bulkhead receptacles for electrical power and compressed air. With this arrangement, the use of auxiliary equipment is reduced to a minimum, resulting in a gratifying lowering of the sound level.

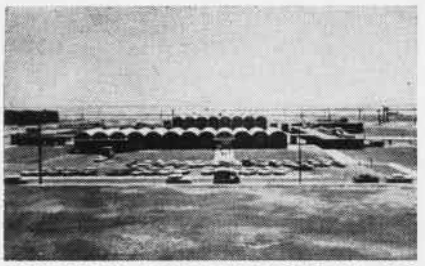
The creature comforts, alluded to earlier, are enjoyed in the Operations area as well as at Mainside. Air-conditioned offices in the topside sections of the hangars are equipped with double-pane, enclosed-airspace windows which effectively reduce the noise factor.

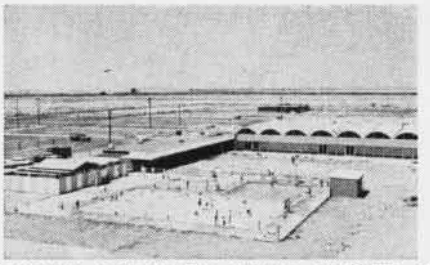
PILOTS CHECK YELLOW SHEET BEFORE HOP

TV TRANSMITS WEATHER TO READY ROOM



DESIGN OF HANGARS AIDS EFFICIENCY

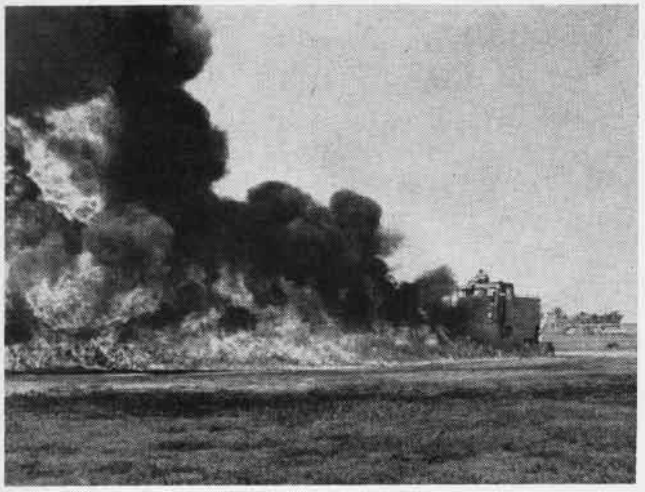




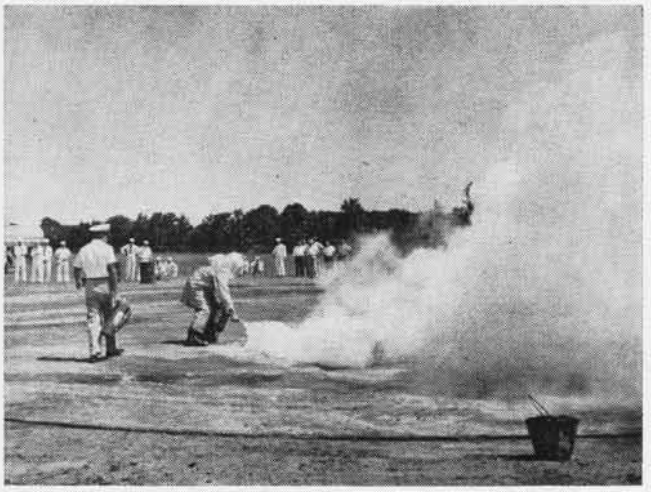
ULTIMATE IN DESIGN IS DEPICTED BY NAS LEMOORE'S COMMUNITY CENTER, ENLISTED MEN'S CLUB AND ADMINISTRATION BUILDING

THIS CAPEHART DEVELOPMENT, A CITY WITHIN ITSELF, PROVIDES MODERN HOUSING FOR LEMOORE PERSONNEL AND THEIR DEPENDENTS

SANFORD HOLDS FIRE-FIGHTING CONFERENCE



CRACKLING BLAZE USED TO SHOW NEW FIRE-FIGHTING EQUIPMENT



SAFETY OFFICIALS EAGER FOR REFRESHER COURSE IN SIMPLEST GEAR

By Ltjg. David H. Dow

A LARGE PLUME of smoke spiraling wickedly from a cleared area at the south end of NAS SANFORD, Fla., recently caught the attention of motorists driving by. One newspaper man rushed to the scene, hoping to get a scoop. Station personnel called Operations for possible information.

All were relieved—one was disappointed, the eager newsman—to find the fire under the supervision of Sanford's structural fire chief, Claude E. Whitten. In fact, he started the fire.

It was simply a prop for a fire-fighting demonstration staged for the Sanford-Heavy Attack Wing One Aviation Safety Conference to put crash and rescue information in the hands—and minds—of civilian users.

Watching the demonstration were more than 70 firemen, policemen, sheriffs, deputies and forest rangers from several central Florida counties.

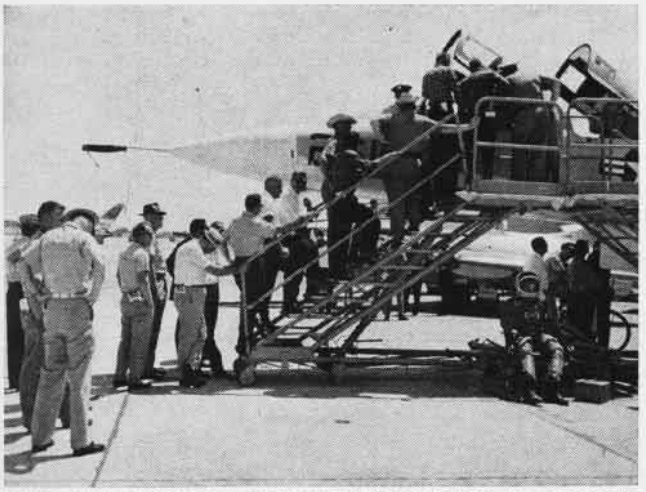
Some may ask, "Why bother?" when Safety Officers have their hands full trying to create "safety consciousness" in their own command. A high percentage of Navy accidents occur, however, in the public domain where civilian safety officers can often assist and save lives *if they know how*. The one-day crash and rescue conference was held to make them effective partners in safety.

LCdr. C. Thomas Covill, Heavy Attack Wing One Safety Officer, was so impressed by the turnout that he announced the conference would become an annual event. He regards it as "one of the most effective ways for Safety Officers anywhere to get important information to the people who can really use it."

No extensive — or expensive — arrangements were necessary. Any Naval Air Facility could duplicate the feat.

To reinforce the spoken word, Cdr. Covill used static displays of an A-5A *Vigilante*, A-3 *Skywarrior* and TF-9 *Cougar*, the major types flown at Sanford. Pilots answered questions.

The event received generous coverage from local media. The delegates were not bank presidents and mayors, but the people who arrive first at accidents.



LCDR. COVILL EXPLAINS PILOT ESCAPE PROCEDURES TO DELEGATES

CIVILIAN SAFETY OFFICERS HAD CHANCE TO INSPECT A VIGILANTE

SELECTED AIR RESERVE

OFFICER INFORMATION TEAM, *NAS Olathe, and Beech Aircraft, Wichita, cooperated to familiarize college men with Naval Aviation. Navy League convertible transported interested students.*

Crusaders for Dallas

Navy and Marine Air Reserve units at NAS DALLAS will soon be operating F-8A *Crusaders.*

Introduction of the first line, 1000-plus mph jet aircraft was announced jointly by the Chief of Naval Air Reserve Training and the Commanding General, Marine Air Reserve Training, from their national headquarters at Glenview, Illinois.

The addition of the Chance Vought airplane, which in the middle Fifties was a world record holder for speed, represents a milestone in modernization for the 17-year-old Navy and Marine Reserve program. It provides the Reserves with a weapons system now in use by regular Navy and Marine Fleet squadrons.

Other first line and high performance aircraft flown by the Navy and Marine Reservists, some of which were involved in the Berlin and Cuban crises, include the Grumman *Tracker,* Lockheed *Neptune,* Douglas *Skyray* and *Skyhawk,* and the North American *Fury.* No other fighter in the Reserve Command offers the combat flexibility of the missile-firing *Crusader.*

In making the announcement, the Chief of Naval Air Reserve Training said, "In past emergencies, such as Korea, Berlin, and Cuba, the combat responsiveness of Navy-Marine Air Reserve Units was a vital factor in our military planning and accomplishment of national objectives.

"The threat of brush fire emergencies of similar nature will most likely continue to occur for many years to come, requiring manned aircraft, aircraft carriers and conventional weapons. Inasmuch as our nation's regular forces, of necessity, must adapt themselves more and more to the all-out or totally destructive type of warfare operation, I think our Navy's operational and Reserve Forces, equipped with aircraft such as the *Crusader,* conventionally armed and combat ready, will represent the principle force-in-being to cope with such emergencies."

Reservists Ride 'First Class'

Everyone loves a parade. So that the Weekend Warriors may look smart in parades, official functions and on those occasions when they transport guests to their station, the Navy League annually gives convertibles to 18 Naval Air Stations throughout the United States. The League's purpose is to spur recruiting of young men for careers in Naval Aviation.

At NAS LOS ALAMITOS, when Capt. William P. Tanner, Jr., "took command" of the new Chrysler at that station, he said, "It will be used primarily for recruiting purposes, in parades, and in television and personal appearances."

VMF-112 Wins Ross Trophy Again

The Marine Air Reserve's coveted

MRS. JOSEPH F. ROSS *presents Ross trophy to LCol. R. J. Irwin, C.O. of Dallas' VMF-112.*

safety award, "The Pete Ross Safety Trophy," is again being proudly displayed at the Dallas, Tex., Marine Air Reserve Training Command.

Its position in Dallas' trophy case has been vacant since 1960. Marine Air Reserves kept the spot vacant in the belief that the trophy would return.

When safety records of all U.S. Marine Air Reserve fighter and attack squadrons had been compiled for 1962, the Dallas Command received word that the "Pete Ross Safety Trophy" was again on its way to Texas.

SAM STRIZICH, *AT2, explains electronics gear to M. A. Prokopovich, AE3, and L. Grout, AO3, of VS-892, on training duty at NAS Seattle.*

CAPT. L. L. BANGS, *C.O. of NAS Olathe, looks at picture of the WW II dive bomber presented to him by Fred Hall, Douglas Aircraft Corp.*

VMF-112 is the winner. In 1959 when it was first awarded to Dallas, VMF-112 had also been named the safest Marine Air Reserve fighter squadron in the United States for that year. This year VMF-112 holds that distinction again.

The trophy was presented to VMF-112 C.O., LCol. Robert J. Irwin, by Mrs. Joseph F. Ross of Glencoe, Ill. She is the donor of the memorial to her son, Marine Air Reserve 1st Lt. Joseph F. Ross, Jr. He was killed in a training accident while attending a weekend drill with MARTU, Glenview, Illinois.

Memories Recalled

When Mr. Fred Hall on behalf of the Douglas Aircraft Corporation presented to Capt. L. L. Bangs, C.O., of NAS Olathe, Kans., a picture of the WW II divebomber, the SBD, it was bound to bring back special memories.

In this aircraft, Capt. Bangs won the Navy Cross during the first battle of the Philippine Sea in the now famous "Battle After Darkness." He had just scored a direct hit on a Japanese aircraft carrier.

"We were returning to our ship, the *Big E*," Capt. Bangs recalls, "when we were jumped by five *Zeros*. By maneuvering close to the water and by my rear gunner's skillful manning of the rear twin-mount, 30-calibre machine guns, we were able to stave off the five *Zeros* and return to our ship."

Fathers and Sons

In the Charles T. Rutecki family the Naval Air Reserve is talked first and foremost. It was not always so; that is, not until both father and son enlisted March 9 at NAS New Orleans.

Salesmanship of the NAS recruiters played a part in the unusual circumstances, considering that "father" Rutecki's role was simply to "deliver his son" to the NAS for enlistment. However, on learning that Rutecki Sr., is a Navy veteran (Aviation Ordnanceman First Class), the recruiters immediately informed the veteran that he too was eligible for the Naval Air Reserves. He was also able to retain his rating of first class petty officer.

Both "Jr." and "Sr." were sworn into the Naval Air Reserve at the same time and assigned to the same Weekend Warrior Squadron, VS-822.

The father in the newly-enlisted reserve twosome held the rate of Gunner's Mate First Class during WW II.

NAS New Orleans also witnessed an unusual oath-administering ceremony when 1st Lt. Milton J. McGovern, USA (Ret.), administered the oath to his son, M. J., Jr., enlisting him in the Naval Air Reserve's Six Month Program. He was immediately assigned to New Orleans' anti-submarine Squadron 823.

Coming a Long Way

MSgt. George E. Harper has come a long way in the Marine Corps Reserve. He has travelled more than 67,000 miles, roughly equivalent to almost three times around the earth's circumference.

He did it by attending drills for 13 years, commuting from his home in Garner, N. C., to NAS Norfolk, a round trip of more than 400 miles. A jet engine mechanic, Sgt. Harper fills the billet of line chief with VMA-233.

1ST LT. M. J. McGOVERN, *USA (Ret.), administered oath to his son in Naval Air Reserve.*

D. E. McWHORTER, *AOC, shows M1 rifle to C. T. Rutecki, Jr., while Rutecki, Sr., looks on.*

AIR SHOW PILOT'S SON JOINS NAO'S

FATHER CONGRATULATES SON ON JOINING NAO PROGRAM

'PROFESSOR' AND DICK, JR., POSE PRIOR TO START OF AIR SHOW

DICK SCHRAM, a 1963 graduate of Purdue University, enjoyed VIP treatment when he visited NAS PENSACOLA and participated in ceremonies marking the dedication of the Naval Aviation Museum June 8th. With his father, Capt. Dick Schram, USNR, he performed in an aerobatic comedy act which preceded demonstrations by the Navy's parachute experts, *The Chuting Stars,* and the famed *Blue Angels.*

This fall, however, Dick will live in student quarters at the birthplace of Naval Aviation when he joins a cadet class of NAOC's (Naval Aviation Officer Candidates) and begins arduous training which will lead to a commission and, eventually, navigator's wings. Although a qualified commercial pilot, Dick was unable to satisfy eye requirements for Navy pilot training. Nevertheless, he foresees an exciting and rewarding future as a flying officer and will get his share of flight time in some of the world's most advanced aircraft.

Commissioned after four months pre-flight training, students then undergo four months of basic NAO training during which they receive a sound flying background in six different types of aircraft. The 20 hours of flight time garnered there is prelude to advanced training at either of two Naval Air Stations—NAS GLYNCO for super-sonic fighters and attack aircraft or NAS CORPUS CHRISTI for ASW-patrol type planes.

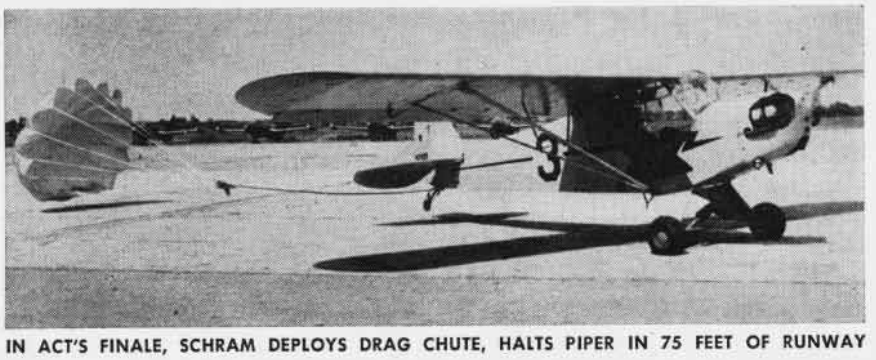
Capt. Schram has performed his act over 200 times and actively promotes recruiting for Naval Aviation. While on reserve active duty he serves as a maintenance staff specialist, usually at NAS GLENVIEW, Ill., or NAS PENSACOLA. In civilian life he is a sales manager for Chicago Aerial Industries Inc.

The Navy may have to go some to equal the excitement of Dick's experience in his father's flying ventures. Teamed in an exciting act, called "The Flying Professor," Dick and his father have thrilled audiences across the United States for years. Their flight demonstration revives the thrills of barnstorming aviators and air circuses of the 1930's.

Sedately garbed in a black suit and toting a book boldly entitled "How to Fly," Dick, Sr., "steals" an airplane against the wishes of the Air Show announcer. "The Professor" screeches and skids the J-3 *Piper* through a frightening one-wheel takeoff and is airborne before realizing he's lost his book of instructions. Dick, Jr., meanwhile, positions himself on the runway in a convertible car and watches as the "Professor" performs snaploops, cloverleaf rolls, wingovers, spins and barrel rolls recovering just a few feet above the ground following each stunt.

An amazing series of maneuvers between airplane and automobile follows as "the Professor" swoops low over the runway, flying the plane with his knees, gesturing wildly for his instruction book. As Dick, Jr., races underneath the aircraft at 65 miles-an-hour his father reaches down and plucks the book from his son's hand.

"The Professor" will fly with the USAF's *Thunderbirds* August 3, in Grand Haven, Mich.; Aug. 17-18, in Kalamazoo, Mich., and Oct. 26 at NELLIS AFB, Nev. He joins the *Blue Angels* Sept. 14-15, at NAS SOUTH WEYMOUTH and Oct. 12, at JAX.



IN ACT'S FINALE, SCHRAM DEPLOYS DRAG CHUTE, HALTS PIPER IN 75 FEET OF RUNWAY

ASN-30 Used in Sea Rescue

Pilot Keeps Crash Spot Pinpointed

On a dark night in May, pilots of VS-38 witnessed an unexpected application of their tactical navigation system, the ASN-30, and at the same time participated in a highly successful rescue operation.

LCdr. Richard Grant was piloting his S-2E *Tracker* in a landing pattern off the USS *Bennington* (CVS-20) when he saw the lights of a C-1A disappear into the water. He immediately called a Mayday and flew to an "on-top" position over the downed *Trader.* He energized his ASN-30 and caused the symbol representing his aircraft's position to move over another symbol which would denote the distressed plane's last known position.

While a memory device in the ASN-30 kept the crash scene "in sight," LCdr. Grant and his co-pilot, LCdr. Raymond Kluger, vectored another S-2E to the stricken plane. The second S-2E, flown by Lt. Frank Sanders and Ltjg. James Durbin, dropped a smoke marker while Grant continued to report range and bearing information to the USS *Chandler,* a plane guard destroyer.

Shortly, a red flare sent up by the downed pilots verified their position which agreed precisely with the one noted on the ASN-30. LCdr. Kluger then activated the aircraft search light and illuminated the yellow life raft which had been automatically released by the C-1A as it crashed into the water. Moments later, with VS-38's two S-2E's maintaining a close vigil overhead, LCdr. G. D. West and Lt. A. L. Andre, the downed aviators, were taken aboard the *Chandler* uninjured. The event marked the first time, it is believed, that the tactical navigation system was used in a rescue operation.

GySgt. Intercepts 1000

Cited for Breaking Unit Record

GySgt. Gerald F. Moscoe, USMC, of Marine Air Control Squadron Six, received a plaque from LCol. Stanley G. Dunwiddie, his commanding officer, for having completed over 1000 intercepts with the squadron.

The average number of intercepts completed annually by an entire Stateside squadron is between 1200 and 2000. GySgt. Moscoe completed his 1000 in the same period of time.

MACS-6 has established other intercept records. From May 7, 1962 to April 23, 1963, the squadron completed 14,035 intercepts, setting an all-time record, according to MACS-6. In this period, it broke the record for intercepts completed in one day with 286, the record for intercepts completed in one week with 944, the record for intercepts completed in one month, 3003.

THIS SH-3A SEA KING'S *500th water landing was made in San Diego Bay, reaching a milestone for Helicopter Anti-Submarine Squadron Ten. With the agility of a ballet dancer, the 8½-ton rotary wing aircraft lifted from the water, skimming across the bay at 200 mph., close to the world's helo speed record. Based at NAAS Ream Field, this landing served a dual mission; it showed the capabilities of the Sea King, and the progress of HS-10's training program.*

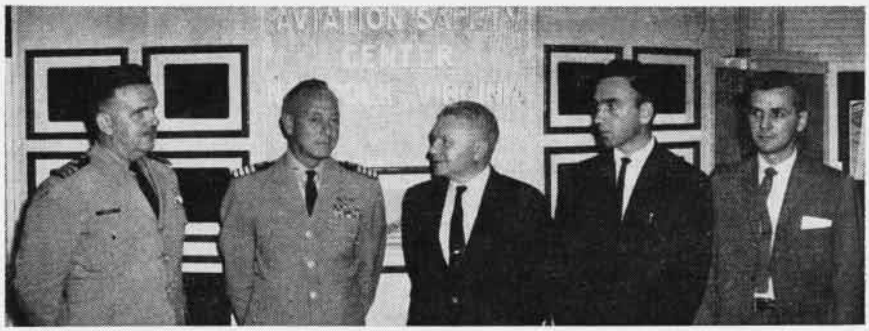
VP-16's Secret Well Kept

Rickenbacker Visit Honors C. O.

In 1942, Cdr. Lester H. Boutte, then a radioman first class, spotted a drifting raft in the South Pacific from the back seat of an OS2U *Kingfisher* scouting plane. After the pilot landed the plane, Boutte went into the water and helped the survivors out of the raft on which they had spent 21 epic days.

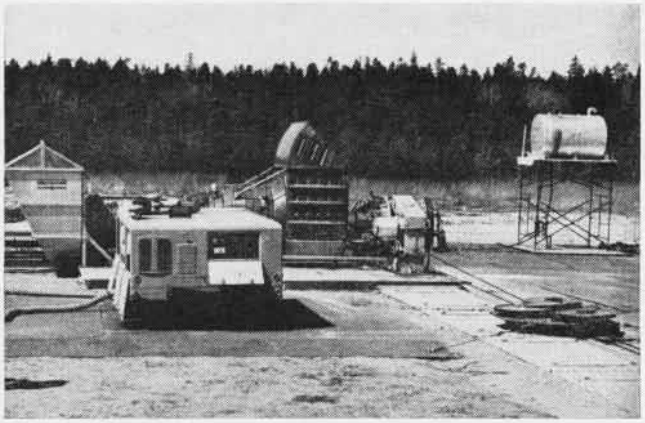
Recently, one of those survivors, Capt. Eddie Rickenbacker, was a surprise guest at ceremonies in which Cdr. Boutte assumed command of Patrol Squadron 16 at NAS JACKSONVILLE. Presence of the World War I air ace, winner of 19 decorations for bravery, was a well-kept secret arranged by officers of the squadron.

Rickenbacker was on a special mission for the AAF when his B-17 was forced to ditch. Cdr. Boutte helped one of the men, seriously ill from exposure, into one of the plane's two cockpits and strapped Rickenbacker and the other rescued airman to the wings of the aircraft. The *Kingfisher* taxied 40 miles until a PT boat intercepted it and took the men aboard.



DESIGN SAFETY *was the theme of a conference attended by 62 major aircraft and engine manufacturers held recently at U.S. Naval Aviation Safety Center, NAS Norfolk. Aim of the conference was to develop a Navy requirement for including safety in aircraft design and production. Jerome Lederer (center) asks question of Capt. E. C. Outlaw, C.O. of the Center. Others shown are Cdr. D. M. Layton, NASC; J. H. Pousson, McDonnell Aircraft, and R. L. Richardson, Boeing Airplane Company. Mr. Lederer is Managing Director, Flight Safety Foundation, Incorporated.*

F-6A IN POSITION PRIOR TO ATTACHMENT OF LAUNCHING BRIDLE



NO TRACK IS REQUIRED: THE SHUTTLE IS RETURNED AUTOMATICALLY

LAKEHURST TESTS PORTABLE CATAPULT

NAVAL AIR TEST FACILITY (Ship Installations) Lakehurst, N. J., is testing a catapult system, the operating principle of which is similar to that of a ski tow.

The highly portable catapult was designed and installed by All American Engineering Company, Wilmington, Del., and is being tested and evaluated for the Marine Corps Short Airfield for Tactical Support (SATS) Program. This will give the Marine Corps a means of launching and landing high performance jet aircraft at advance bases where runways are limited in length, crude, or non-existent. The catapult is characterized by simplicity of design, rapid installation (less than three days), all-weather capabilities, suitability for various terrains, portability, and minimum logistic support requirements. It is unique in two respects: no track is required for aircraft guidance and the shuttle automatically returns to the battery end, ready to accept the next aircraft.

Designated the CE-2, the catapult's main components consist of a J-79-8 turbojet engine, a continuous loop wire rope, a series of sheaves or pulleys, a holdback system, and a braking system.

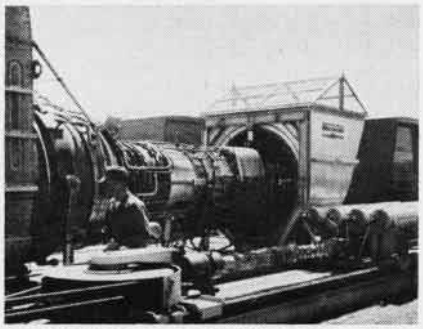
The jet engine is located approximately 100 feet from and parallel to the launch end of the catapult. Attached to the engine is a capstan or drum on which is looped a wire rope. This wire rope extends onto the runway to the launch position of the catapult and through a sheave. It is then continued down the runway to the terminal end, through a series of sheaves, and returned to the launch end and back to the capstan.

In order to launch an aircraft, the turbojet engine is started and kept at idle speed. The aircraft is taxied to the launch end and the nose wheel is placed on a dolly or shuttle and connected to the shuttle by means of a bridle. This shuttle is connected to the extended wire rope. The holdback system is then attached to the aircraft. The system is pre-tensioned, tightening the wire rope.

Upon signal, the aircraft is run up to full rpm. The jet engine power is increased and the catapult braking system is applied.

At time for launch, the catapult brakes are released and the capstan turns, causing it to pull the continuous loop cable. Simultaneously, the holdback fails at a predetermined force level and the shuttle, with aircraft attached, is pulled down the runway by the extended cable.

As takeoff speed is reached, the aircraft releases from the shuttle and is airborne. A shuttle arrester system installed at the terminal end of the power stroke grabs the shuttle and flings it back to the launch end where it is caught and ready for the next aircraft. In the event of a wind change, the system has a bi-directional capacity by simply reversing launch ends and cables in a period of minutes. The system can be extended or shortened, depending upon the weight and size of the aircraft launched.



A MARINE INSPECTS THE CE-2 POWER SYSTEM

Sidewinder 1C Course Set

20 Technicians Convene at NOTS

Twenty military and civilian technicians from nine Naval and Marine installations assembled at NOTS CHINA LAKE recently to attend a two-week station-sponsored course. All men are from installations where the *Sidewinder* 1C system will be used. The course is designed to familiarize them with the operation and maintenance of test equipment used to check out the system.

The *Sidewinder* 1C is an improved version of the *Sidewinder* 1A which became operational in 1956. The 1A was highly successful during the 1958 Quemoy crisis in which the Chinese Nationalists reportedly knocked down 13 Red MIG's with the NOTS-developed weapon.

The course was coordinated by Frank Wentink who has been associated with *Sidewinder* since its inception. He heads up the Fleet Field Service Unit, Engineering Department, China Lake.

HELICOPTER PLAYS ROLE IN RESEARCH

A SINGLE Marine helicopter is the air arm of USS *Maury* (AGS-16) and fulfills a special mission in Naval Aviation. The UH-34D from Marine Medium Helicopter Squadron 163 airlifts passengers and cargo from *Maury* while the ship makes detailed oceanographic surveys in remote areas in the Pacific.

During a recent six-month operating-period in the Gulf of Thailand and nearby areas, helo pilots, Capt. R. A. Fritzler and 1st Lt. H. E. Craig, transported 258,000 pounds of cargo and over 2400 passengers while accummulating 420 hours of flight time. The aircraft flew 858 sorties, averaging 620-pound payloads each, believed to be a record for a six-month deployment.

Purpose of *Maury's* survey operations is not only to obtain information for the publication of accurate nautical charts and sailing directions but also to supplement existing knowledge of oceanographic conditions. Specially trained crews use two 50-foot sounding boats and two LCVP's in collecting information. Squads of men must also go ashore in order to complete the operation.

The helicopter saved numerous man-hours by transferring men and equipment to inland areas not easily accessible by foot. Signal parties, flown into jungle terrain or mountain ridges, located old survey markers used to pin-point sites where navigation equipment would be later constructed. Then, heavy generators and other maintenance gear were flown to these sites to activate the equipment which, subsequently, led to the recording of hydrographic data. The helicopter's value was almost incalculable.

MARINE PILOTS *flew 858 sorties in a six-month period supporting survey operations.*

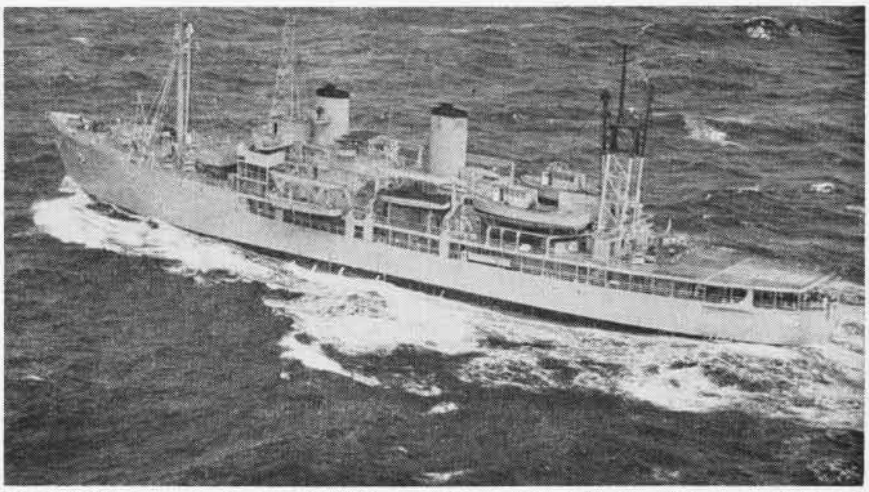
Although the ship lacks a complete line of support equipment for its helicopter, four Marine crewmen kept it flying with a minimum loss of operating time. They managed to replace a high-time engine and rotor head and simultaneously do routine maintenance.

The USS *Maury* and her crew have also been active in a people-to-people program which reached citizens in Japan, Okinawa, Singapore, Guam, the Philippines and Bangkok. Before leaving its home port of Pearl Harbor, the ship loaded two tons of clothing, donated by the Honolulu Council of Churches. The clothing was later distributed to impoverished refugees in Hong Kong.

After the first logistic stop in Bangkok, the government of Thailand requested assistance in transporting relief supplies to the typhoon-stricken southern part of the country. Within three days *Maury's* boats and helicopter were unloading 200 tons of stores for the provincial city of Nakhon Si Thamarrat. After 48 hours of work, the operation was finished and assistance rendered to victims of the worst natural disaster in Thailand in 100 years.

AGS-16 is named after Matthew Fontaine Maury, the Navy's best known hydrographer, who performed most of his research during the Civil War. Commissioned in 1945 as an AKA, *Maury* was converted to a survey ship and equipped with a stern flight platform, one of the first constructed for helicopters on a naval vessel. *Maury* steamed 35,000 miles on its recent cruise in the Far East and has also served in the Atlantic and Mediterranean Fleets, fulfilling a mission essential to man's quest in mastering seas.

LAND PARTY *uses an electronic tellurometer which measures distances up to 21 miles.*



USS MAURY *stores soundboats and LCVP's amidships and has helicopter platform on the fantail. Modern drafting room, print shop and photo laboratory provide for efficient recording of data.*

AT SEA WITH THE CARRIERS

FIRE RINGS *billow from five-inch .38's in the USS Hancock as gun crews aboard train on a target missile during gunnery practice.*

ANGEL FOOD CAKE *was not on the menu, but 13 Dominican nuns from Santa Clara, Calif., found food flavorful during a visit to the Hancock.*

PACIFIC FLEET

Hancock (CVA-19)

The Pilot Landing Aid Television (PLAT) system is now installed in *Hancock* with several monitors located throughout the ship for the use of pilots and the ship's Air Operations Department. There is speculation aboard about the possibility of tying in the video tape to the ship's internal television system so that the crew can view air operations.

"Tennessee" Ernie Ford was recently made an honorary member of *Hancock* while the carrier was anchored in Oakland Bay. The perennial "Pea-picker" taped two half-hour shows aboard, with guest star Cousin Minnie Pearl. At the end of the last show, Capt. Thomas D. Harris, commanding CVA-19, presented Ernie with a ship's plaque.

In the Navy, there are about 28 active duty Naval officers qualified to serve aboard submarines and to pilot aircraft. A recent survey in CVA-19 revealed that two of these talented officers are serving aboard. They are Cdr. Arthur C. O'Leary, Jr., and Cdr. William E. Edwards. Other Dolphin holders aboard include Lt. Gerald R. Ford, MSC; Capt. Walter M. Burkett, USAF, currently attached to VA-212; Ltjg. Laray Olson; and Warrant Officer Howard L. James.

Several months ago, Capt. Harris hosted two friends who flew aboard to observe Weapons Training Exercises. All three are former skippers of amphibious assault ships and worked closely together during the Cuban crisis. The two friends? Capt. Horace Epes, now commanding *Kitty Hawk* (CVA-63), and Capt. William E. Lemos, who assumed command of *Ranger* (CVA-61).

Hornet (CVS-12)

The 76,000th arrested landing was made aboard *Hornet* by Cdr. David B. Lember of VA-122, home-based at NAS LEMOORE. He made the record landing in an A-1 *Skyraider*.

Bon Homme Richard (CVA-31)

West German naval officers and men of the frigates, *Graf Spee* and *Hipper*, visiting Seattle, were guests aboard the *Bonnie Dick*, during a yard period. The West Germans were on a training cruise.

Carrier men, threading their way through the unfamiliar shipyard at night upon returning from liberty, are finding it a little easier to find their ship. The ship's lighting shop has illuminated the numerals "31" painted on the island. Over 100 bulbs were used in the rigging.

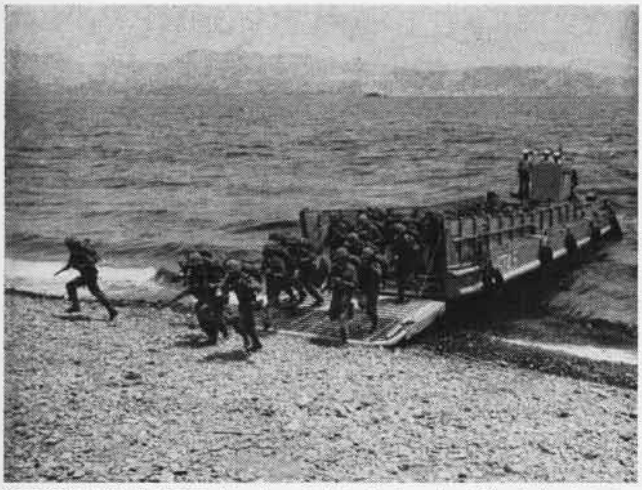
The overhaul and modernization fever has spilled over normal working hours for 17 members of the crew. They volunteered to assist the Bremerton Girl Scouts in their spring modernization program at Camp Lyle McLeod, some 25 miles west of Bremerton. On weekends, they built a cabin of pine from materials hewn from surrounding woods and went to work on a floating cabin for use on the nearby lake.

Yorktown (CVS-10)

Photos on the facing page show the Marine Detachment in CVS-10 making an amphibious assault on the Zambales Training Area located across Subic Bay from the Naval Base. Their command post and bivouac area established, they conducted drills in fire team tactics and problems, machine gun drills, night navigation, night fighting, and combat and reconnaissance patrols.

About a week later, 200 officers and men of the ship's landing party arrived on the beach, only to be greeted by a squad of Marines firing at them with blank ammunition.

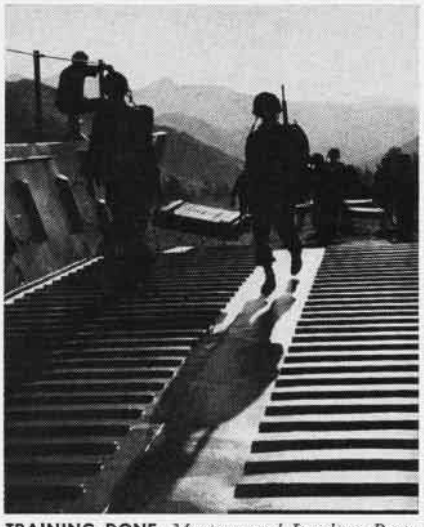
The skirmish was short. Troops of



YORKTOWN'S MARINE *detachment hits the beach at Zambales training area off Subic Bay, Philippines, and effectively establishes a beachhead.*

BIVOUACKED MARINES *spent a week conducting drills and field problems. Here, they clean and maintain machine guns, between drills.*

SHIP'S LANDING PARTY *from the Yorktown storm ashore and meet brisk resistance from Marine detachment. The 200-man party attended field classes, fired machine guns and tossed grenades.*



TRAINING DONE, *Marines and Landing Party return to boat for trip back to Yorktown.*

the landing party were escorted to the command post, put into platoon bivouac areas, and then taken to the field for classes.

Capt. Willis W. Barton, Jr., officer-in-charge of the Marine Detachment and of the forces ashore, briefed the men on the purpose and concept of the ship's landing party. Classes were then given on field sanitation, first aid, arm and hand signals, fire team and squad tactics, and the operation of machine guns and the 3.5 rocket launcher. The *al fresco* academics were effective.

The last day was the noisiest of all. About 2½ tons of ammunition were expended by all hands of the landing party. M-1's, .45-caliber pistols, machine guns and BAR's were fired, and each man got to throw a grenade.

The lively action was photographed by R. J. Buckowski, J02, and J. H. Knight, PH3.

Bennington (CVS-20)

Back in operation, *Bennington* is using a "dust-pan" lighting system and is testing a type of aluminum-clad flight deck planking. She completed refresher training in May, in waters off San Diego.

Ticonderoga (CVA-14)

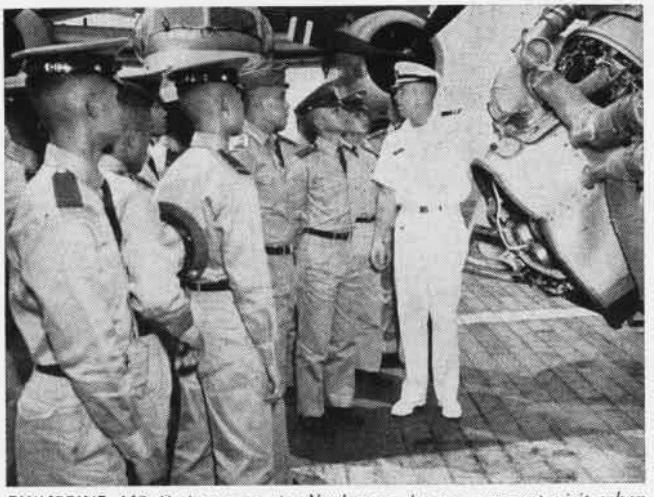
The "Tico Tigers" saw an old friend return for a one-day visit when VAdm. Paul D. Stroop, ComNavAirPac, came aboard. After a brief inspection, he spoke over the ship's announcing system. "You are doing a very fine and outstanding job," he said. VAdm. Stroop assumed his present command in November 1962 while aboard the *Ticonderoga*.

An A-4C *Skyhawk* of VA-55 was flown aboard the *Tico* by Ltjg. Lynn O. Cox as he logged in the aircraft carrier's 50,000th arrested landing.

Ranger (CVA-61)

Ranger men took a long look at a record set by *Bon Homme Richard* and the ammunition ship USS *Ranier,* in which the two ships loaded 151 tons of ammunition an hour while underway, and decided they could do better.

'SPOTEM' *Flight Deck personnel aboard USS Bennington (CVS-20) move an S-2 Tracker from VS-33 and are a familiar sight during air ops.*



PHILIPPINE AIR *Cadets tour the Yorktown during a recent visit when the carrier stopped at Manila. There were 50 cadets in the group.*

About 400 men from the carrier's Deck Group, "G," and Fifth Divisions transferred an actual 39.7 tons in a bit over six minutes to receive an "outstanding" mark from an on-board observer and from the ammunition ship USS *Mauna Kea*.

Of the four stations manned for the rearming, three took on four loads, and one brought in five. The rate of actual transfer was computed to an hour's tonnage to give the average weight. The combined efforts of the two ships loaded the carrier with ammo at a rate of 366 short tons an hour.

Ranger promptly sent in the figures to Commander Service Squadron Three and, pending authentication, lay claim to a new loading record.

Oriskany (CVA-34)

During the last ten days of an at-sea period, after the *Big O* completed all her carrier qualifications, she opened her decks to all squadrons in the area that wished to conduct carquals. The results: 1152 day landings, 424 night landings, and a combined total of 1450 day and night catapult shots during the period. Almost all landings were made by aviators initially qualifying in model.

Oriskany registered her 65,000th and 66,000th landings within six days. Lt. J. F. Burkel, USN, VAH-123, NAS Whidbey Island, piloting an A-3A *Skywarrior*, recorded the 65,000th. He was followed in the X000th department by Ltjg. R. L. Vollaire of VS-38, flying an S-2A *Tracker* out of NAS North Island.

Four television newsmen and cameramen from KRCA-TV, Sacramento, Calif., flew aboard *Oriskany* for a 30-hour stay during which they filmed air operations, routine shipboard activities, and interviewed local men aboard as well as Capt. Herman J. Trum, commanding. The film was edited for a documentary on the attack carrier.

Princeton (LPH-5)

Pilots from HMM-163 logged three important landings aboard *Princeton* in one day. First Lt. Philip C. Goddard, in the same aircraft with Maj. Ray T. Lemmons, logged the 100,000th landing aboard *Princeton* since she was commissioned in 1947. A few minutes later, another helicopter, piloted by 1st Lt. Billy G. Phillips, with 1st Lt. Peter M. Heiman as co-pilot, made the 38,000th helicopter landing.

Rounding out the day, Capt. John F. Walsh, with Capt. Frank S. Bell, made the 28,000th landing since *Princeton* was commissioned an LPH.

Next day, all six pilots joined Capt. Robert H. Smith, commanding LPH-5, in cutting a 250-pound cake to celebrate the several occasions.

Kitty Hawk (CVA-63)

The citizens of Toledo, Ohio, upon the recommendation of the Department of the Navy, presented *Kitty Hawk* with a $30,000 silver service.

Originally, the set was presented to the USS *Toledo* (CA-133) in tribute to the honor given the city by the naming of the ship. After the cruiser was decommissioned in 1960, Toledoans decided the service set should be utilized by another Navy ship until such time as USS *Toledo* might be recommissioned.

Capt. W. L. Curtis, Jr., commanding *Kitty Hawk*, accepted the set presented by Toledo's mayor, the Honorable J. W. Potter, in ceremonies aboard. In turn, Capt. Curtis presented Mayor Potter a plaque bearing the *Kitty Hawk* emblem and the inscription, "To the citizens of Toledo in appreciation." The plaque will be displayed in Toledo's City Hall.

ATLANTIC FLEET

Saratoga (CVA-60)

For the first time since 1957, a U.S. aircraft carrier visited the French port of Marseilles. On the morning of *Saratoga's* arrival, Adm. Demeocq, Commandant of the French Navy, made an official visit. In his wake was a wave of 15 French and three British journalists. A short time later, the Consular Corps of the city, representing 17 countries of the free world, boarded for a briefing and tour of the carrier. Two days later, 20 leading civil and military officials boarded.

LCdr. Melvin "Sage" Bassett of Carrier Airborne Early Warning Squadron

12 approached the carrier in an E-1B *Tracer* by flying over the hills surrounding the small French village of Cavalaire. When he landed aboard, he logged in the carrier's 69,000th arrested landing.

Lexington (CVS-16)

When *Lexington* recently visited the Corpus Christi area, she picked her way cautiously through the narrow channel which was rippled by sandbars and offered limited deep water. She edged close to the pier at Port Aransas. Nearing the pier, she sought out a niche in the channel, pulled in, and backed up to the mooring, which was only one-third the length of the 910-foot carrier.

The occasion for her visit was "Buccaneer Days," celebrated in that area, and a long weekend "open house" during which more than 30,000 visitors came aboard. This was the first time an attack carrier had visited the port.

Traffic was jammed for miles as visitors arrived. As late as 1600 on both Saturday and Sunday, the lines of pedestrians and cars stretched out four to five miles from the carrier.

On Sunday, open house was supposed to end at 1600, "but there were 3000 persons still lined up," said LCdr. D. C. Cecil, the ship's PIO. "We couldn't turn them away." All those who were still in line when visiting hours ended were taken aboard. It was after 1830 before the last went ashore.

The weekend over, Capt. Lucien C. Powell, commanding, heaved a sigh of relief as *Lex* headed back to sea, to conduct carqual ops for student pilots of the Naval Air Advanced Training Command.

While in the Corpus area, *Lex* completed her 52,000th arrested gear landing—since recommissioning.

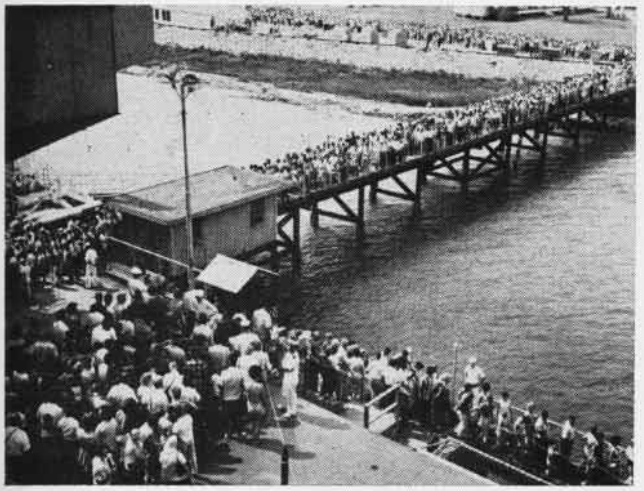
It had been a full 18 months since an entire flight completed the required eight landings without a waveoff from the Pensacola-based training carrier. It was accomplished in a flight of T-28 *Trojans* led by Instructor Flight Leader Capt. Robert L. Cantrell, USMC, of VT-5. The squadron is based at NAAS SAUFLEY FIELD in northwest Florida.

Others in the flight were 1st Lt. John M. Mattiace, 2nd Lt. Robert W. Morris, Ens. Salvatore A. Pace, Ens. Richard T. Kelly, and MarCad James G. Goodwin.

TRIMMING BALLAST *in an enthusiastic physical fitness program in Lake Champlain, these men are exercising and dieting in order to remove excess blubber—and having a whale of a time doing it.*

Wasp (CVS-18)

The Boston-based *Wasp* entertained a group of 80 local newsboys, accompanied by more than 100 parents and newspaper executives. The lads had been named "Ace Newspaper Boys of the Year" by the Boston Herald Traveler. Each boy received a camera from the paper for his efforts.



IN A LONG, LONG LINE *a-winding, thousands of visitors stream aboard USS Lexington during a weekend visit to the Corpus Christi area.*

ACE NEWSPAPER BOYS *of the year from Greater Boston area are feted aboard the carrier Wasp. They toured the ship and banqueted aboard.*

Lake Champlain (CVS-39)

The average fat guy aboard *Lake Champlain* carried about 22 pounds more blubber than Lt. Roy W. Gerritsen, Assistant Medical Officer aboard, would allow. He is in charge of a reducing program in the *Champ*. Though a few men were only three or four pounds overweight, one rotund radioman scaled in at an impressive plus-66 pounds. About 55 men are participating in a program designed to chop off seven pounds the first week and a few less pounds each week after that until normal weight is achieved. Dieting, exercise, and in few cases, medication supplements are used.

The diet program seems to have made everyone happy: the slenderized sailors, the Medical Department, shops and offices depending on keen, battle-ready men, and of course, the Supply Department.

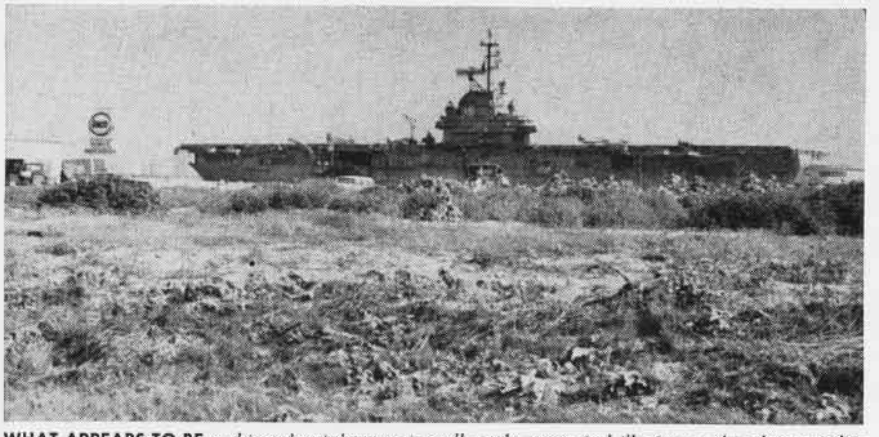
Champ ran a new flag up the yardarm recently, and everyone is "saluting" it. The green and white pennant will remain flying until mid-August when the carrier comes out of Boston Naval Shipyard. At least, that is the hope of Capt. Andrew L. Burgess, commanding the *Champ*. The flag symbolizes a campaign to minimize accidents occurring aboard while the ship is in the yard. In event of a disabling injury to a crewman or yard worker, the pennant will be hauled down.

This is the first time such a campaign has been waged, according to Frank Divine, Chairman of the Masters Safety Group. If successful, the pennant will be raised on all ships entering the yard.

Randolph (CVS-15)

When *Lake Champlain* readied for her yard period, Helicopter Anti-submarine Squadron Five transferred to the *Randolph*, breaking a 3½-year continuous attachment to CVS-39. The squadron proceeded to Norfolk where its 300 officers and men and 14 SH-34J *Seahorse* helos boarded the carrier. HS-5 participated in ASW maneuvers with Task Group Alfa and is assigned to CVSG-58 aboard. The squadron expects to return to the *Champ* when she is again ready for sea.

Randolph now has a Colonel commanding the ship, with another Colonel functioning as second in command. Capt. Harry L. Harty, Jr., C.O. of CVS-15, and Cdr. Ben C. Tate, X.O., were commissioned "Kentucky Colonels" by Mr. Robert E. Hatton, President of the Kentucky Navy League.



WHAT APPEARS TO BE *a skipper's nightmare is really only an optical illusion as the photographer provides a doggy's-eye view of Lexington docked at Humble Pipeline hitching post near Corpus.*

Forrestal (CVA-59)

LCdr. William E. Ramsey, serving with the Naval Air Test Center, Patuxent River, Md., successfully completed the 80,000th landing aboard *Forrestal*. A team from the Test Center was aboard for a week of carquals when LCdr. Ramsey grabbed the arresting wire while flying an E-2A *Hawkeye*. Lt. James R. Wilson was his copilot during the flight.

Enterprise (CVAN-65)

As far as is known, the first A-5A *Vigilante* Centurians are pilot Lt. Gerald M. Ryman and his Bombardier/Navigator, Ltjg. Dominick A. Spinelli, who cut their cake aboard the *Big E*. They are members of Heavy Attack Squadron Seven. Cdr. Leroy A. Heath, commanding VAH-7, became a Centurian in a *Vigilante* later the same day.

Enterprise's 16,000th arrested landing was made by Ltjg. R. C. Coit in an A-4C *Skyhawk* of Attack Squadron 76.

Essex (CVS-9)

Senator Claiborne Pell, Rhode Island, spent the night in *Essex* recently on an anti-submarine orientation cruise. He saw the completion of night submarine-hunting exercises off New England. Next day, the carrier pulled into NAS QUONSET POINT.

Shangri La (CVA-38)

The 50,000th landing aboard *Shangri La* was recorded by Lt. John B. Nichols, III, of VF-62, when he landed an F-8B *Crusader* aboard while the carrier operated off Guantanamo Bay, Cuba, during a Caribbean cruise.

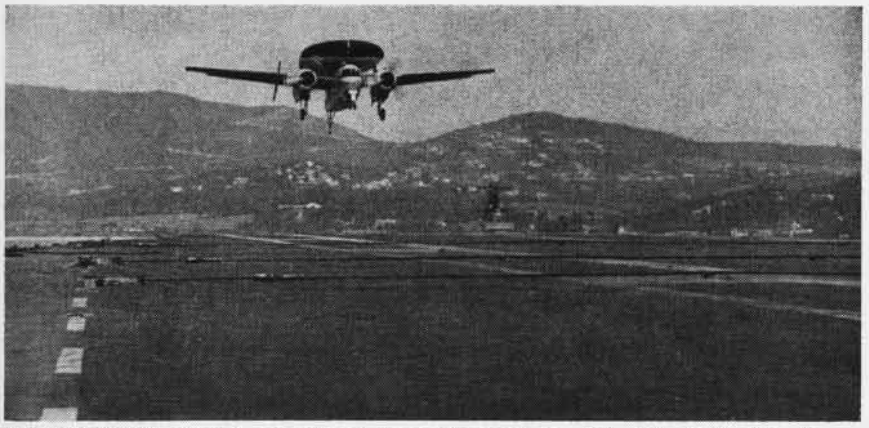
Intrepid (CVS-11)

Recent visitors aboard *Intrepid* were RAdm. Louis A. Bryan, BGen. (now MGen.) H. Pockyla, USA, and 28 other staff members of the Joint Chiefs of Staff. Later, MGen. (Baron) Antoine P. de Marmol, Commandant of the Belgium National War College, and 30 Belgian officers were briefed on the mission and operations of an ASW aircraft carrier. Capt. John C. Lawrence is C.O.

Franklin D. Roosevelt (CVA-42)

The *F.D.R.* claimed a new Sixth Fleet record by logging 303 arrested landings in one day. She did this on the last day of a simulated air strike against the *Saratoga*, which relieved her the following day. The 300th landing that day was made by Lt. Dave W. Miller of VA-15. This arrestment also made him a *Roosevelt* Centurian.

Frank L. McGuire, BTC, has been awarded the Navy Commendation



THIS E-1B TRACER *driver is not confused, despite the proximity of the hills of Cavalaire, France, in the background. He is completing an approach pattern for the 69,000th landing on Saratoga.*

Medal for heroic action in a boiler fire last November. The citation from the Secretary of the Navy reads: "When an uncontrollable fire developed in a boiler, and the fireroom had to be evacuated because of smoke and intense heat, McGuire along with a shipmate, voluntarily entered the space and succeeded in relieving the pressure of the boiler, thereby preventing a probable explosion which undoubtably would have caused more extensive damage and possible loss of life. Throughout the rest of the morning, McGuire re-entered the fireroom several times to aid in extinguishing the blaze."

VT-27 Safety Score Climbs

Logs 50,000 Accident-Free Hours

On May 3, 1963 when a TS-2A *Tracker,* piloted by NavCad C. L. Stein, landed at NAAS NEW IBERIA, La., Training Squadron 27 officially logged its 50,000th safe flight hour.

NAVCAD WELCOMED AT END OF FLIGHT

Cdr. James E. Tout, C.O., of the squadron, and Maj. L. J. Oltmer, Safety Officer, extended their congratulations to Cadet Stein when he came into the aircraft parking ramp. Cdr. Tout and Maj. Oltmer together have flown a total of 12,500 accident-free hours, of which 3900 were in the S-2A.

While chalking up the 50,000 mark over a 17-month period, the pilots of VT-27 flew a total of 18,700 flights and logged 106,677 landings. Of this total, 37,700 were Field Carrier Landing Practice and 4614 were carrier landings.

USS Wright Commissioned

Can Communicate across the Globe

The Navy's second fully-equipped mobile command post, the command ship *Wright* (CC-2), was commissioned in May at Puget Sound Naval Shipyard, Bremerton, Wash. RAdm. Allan L. Reed, Assistant Chief of Naval Operations for Fleet Operations and Readiness, was the principal speaker at the ceremonies. The *Wright* follows the USS *Northampton* (CC-1), first of the Navy's command ships, already operating in the Fleet.

The ship's mission is to provide command control facilities which will contribute to the defense of the United States through its world-wide communications system, the most extensive ever installed aboard a naval vessel. Top echelon commanders and their staffs will utilize the *Wright's* "voice of command," to communicate with ships, aircraft or stations anywhere in the world.

The *Wright's* command spaces have facilities for theater-type presentations similar to command posts ashore, including projection equipment and huge motion picture screens. An entire wall is used to display large status boards and maps which are mounted on tracks and can be quickly rolled into veiw. Over-all packaging of the operational control spaces calls for rooms for war operations, plotting, chart and graphics, emergency action, briefings and conferences.

An entire room is given over to the ship's teletype printers, each of which can record incoming messages at 100 words per minute. The ship is capable of handling as many messages in a day as a major shore-based communications station.

Over 1700 personnel, including prospective commands and staffs, man the *Wright.* Of these, 200 are assigned to operate and maintain transmitting antennae, the largest and most powerful ever placed on a Navy ship.

SecNav Cites VRC-40 C.O.

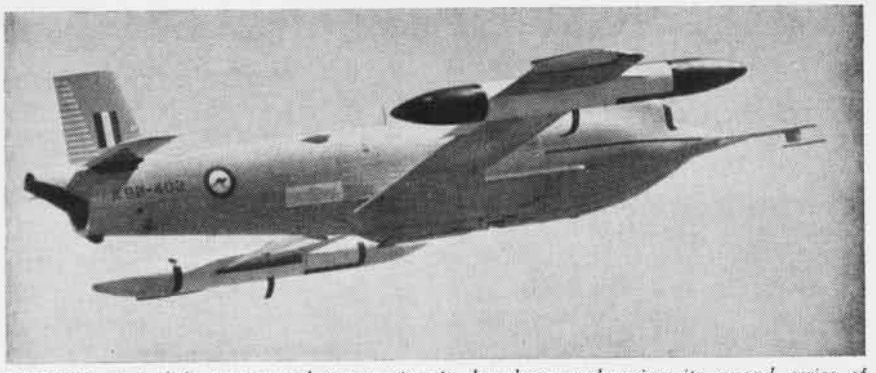
Lauded for Cuban Crisis Service

Cdr. Calvin Burkhart, C.O. of VRC-40, was awarded the Navy Commendation Medal by SecNav Fred Korth for outstanding leadership and logistic planning during the Cuban Crisis. RAdm. Forsyth Massey, ComFAirNorfolk, read the citation during ceremonies at NORFOLK on May 15.

Cdr. Burkhart's squadron, "deploying on extremely short notice with only nine aircraft, and operating from ten different advanced bases with minimal support maintained 100 per cent aircraft availability. During a 36 day period, the squadron flew day and night for a total of 1574 hours, airlifting 2524 passengers and 175,745 pounds on high priority cargo."

VRC-40 is the Atlantic Fleet's Carrier-on-Board Delivery squadron.

LCDR. J. R. RABUN, *VP-44's Operations Officer, flying a P-5 Marlin, logged his 10,000th hour in the air in May. Cdr. R. E. Gayle, C.O. (L), congratulated him at end of flight. Of Rabun's total, some 7200 were pilot hours.*



JINDIVIK, *Australia's jet-powered target aircraft, has been undergoing its second series of evaluation flights at the U.S. Naval Missile Center, Point Mugu, Calif. The first series occurred in 1962. The Jindivik can take off or land in 2500 feet or less, operate up to and above 60,000 feet, and fly at near-sonic speed. Another target, the French CT-41, has also been under test at the Center. Its twin wing-tip ramjets power it to speeds up to Mach 2.7.*

From 'Phudds' to Phantoms?

Champ Fudd Driver Leaves VAW-12

A Navy pilot, who has probably logged more flight time in the E-1B "Willy Fudd" aircraft than any other pilot in the world, left VAW-12 in May to attend Navy's Test Pilot School at Patuxent River, Md.

He is Lt. Michael G. Woodbury who joined VAW-12 in January 1960. In the past three-plus years, he has amassed a total of 1625 flight hours and 224 carrier landings in the E-1B. The early warning radar planes also joined the Atlantic Fleet in January 1960.

Woodbury was a member of the first VAW-12 detachment to fly the E-1B's aboard the USS *Independence* (CVA-62). Later he joined the first E-1B detachment to go aboard an anti-submarine carrier, the USS *Randolph* (CVS-15).

When Lt. Woodbury reports to the Test Pilot School, he will be flying something a little hotter than the relatively slow E-1B. Whatever his assignment, he can be proud of the accolade bestowed upon him by VAW-12: World's Champion Fudd Driver.

SIKORSKY CHSS-2, *first of a nine-aircraft order for the Royal Canadian Navy, practices sonar dips in Long Island Sound. The twin-turbine helicopters will be used as ASW weapons aboard Canadian carrier Bonaventure.*

New School Record Set

Exceeds any Recorded since 1929

At NATTU LAKEHURST, Clayton L. Glover, AA, has set a new scholastic record by compiling an average of 96.7 during the 19-week course of instruction in the Aerographer's Mate School (Class A).

This is the highest average thus far attained by any of the more than 12,000 students who have attended the school since its establishment in 1929. The old record of 95.6 was set by Robert H. Blaney, AG2, in 1958 while he was attending a 13-week course of instruction.

Since Blaney set his record, 2755 students have successfully completed the course.

The course of instruction in which Glover set his record is considered as rigorous as many given in college.

Whidbey Men Save $$'s

Trio Develops Runway Marker Light

Three heads are better than one. This was proved when W. T. Cencebaugh, ABCA, Alfred L. Sander, ABH1, and James Rolph, Public Works Inspector, put theirs together to come up with a new portable runway "carrier deck" marker light. Some 20 of these lights outline a carrier deck on shore installation runways for night field mirror landing practice at NAS WHIDBEY ISLAND.

The marker and three men dreamt up costs less than *one dollar,* compared with the commercially made $157 light. The new light is made from a 1½" pipe mounted on a piece of scrap metal and capped at both ends. One end has an opening in which is inserted a small bulb.

According to Sander, petty OinC of the Whidbey Arrestment Gear crew, "We had to stop using the commercial light. Our budget couldn't stand a $157 loss every time an A-3B ran over one of the lights. Over 200 were broken each year. We knew there must be a way that didn't hit our budget so hard."

Thus the trio determined to make a less breakable, less expensive light. With the exception of the 10-cent bulb, each light is unbreakable.

NAS KEY WEST C.O., *Capt. D. M. Stevens, II, receives the Navy Commendation Medal from RAdm. J. M. Carson, ComFAirJax, for his "inspiring and zealous devotion to duty" during the Cuban emergency late last year.*

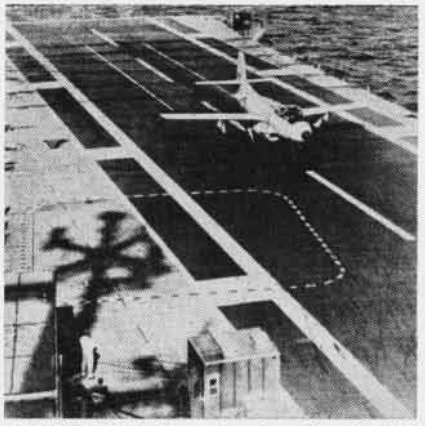
MIDSHIPMAN *Richard McPherson, a member of the NROTC at the University of South Carolina at Columbia, qualified this year for his private pilot license. He is being checked out by FAA representative Bill Jones.*

GCA Unit 32 Sets Record

Marks 60,000th Safe Approach

GCA Unit 32 at NAS GLYNCO recorded its 60,000th accident-free approach on May 6 when T. J. Morin, RD1, and J. C. Elledge, AC1, controlled a *Beechcraft* flown by Cdr. G. J. Jogan, Operations Officer, to a safe landing. The record-breaking approach was one of approximately 550 made each month at Glynco.

Unit 32, commissioned at Lambert Field, St. Louis in 1948, was transferred to Glynco in 1956. One of 67 GCA groups located throughout the world, it uses AN/MPN-5 equipment and stands 24-hour duty, seven days a week. LCdr. L. D. Vaughn is Officer-in-Charge of Unit 32, consisting of 17 controllers, three technicians.



A 12-YEAR-OLD *Navy aircraft, a Douglas F3D-1 Skyknight twin-jet fighter, made aviation history six years ago when it became the first airplane ever to land aboard a carrier without the pilot touching the controls. Bell Aerosystems borrowed the F3D from the Navy in May 1952 to use in connection with the development of automatic aircraft landing systems. At left, it lands aboard Antietam; at right, Bell Pilot W. M. Callan climbs aboard for the airplane's final trip to MCAS Cherry Point. The airplane is the last of the F3D-1's in operation.*

211 Ends 13 as 233 Starts

VMA Units Make Japan-U.S. Shift

The "Wake Island Avengers" of VMA-211 returned to MCAS EL TORO after completing a 13-month tour in Japan. They were relieved by the *Bulldogs* of VMA-233. The *Avengers* straggled into El Toro on individual orders, most returning from State-side leave, while the *Bulldogs* flew as a group to Japan, flying non-stop on MATS aircraft.

The squadrons exchanged aircraft and equipment, obviating the expense of transporting the planes and gear.

ONE OF THE FEW *enlisted pilots on active duty in the Navy, James W. Ray, AO1, received a letter of commendation from RAdm. R. N. Sharp, ComFAirWestPac, for completing 1000 accident-free test flight hours at Itami, Japan.*

LT. P. L. KAUFFMAN, *flying chaplain of FAW-11, Jacksonville, gets instructions from VP-5 skipper, Cdr. R. L. Huber (R). Chaplain Kauffman flies with the men of the wing to understand better their problems and lives.*

VA-65 Announces Score

27,000 Safe Hours in 3½ Years

Attack Squadron 65 completed over 27,000 accident-free hours in the redoubtable A-1H *Skyraider* on April 1, 1963. This total, believed by the squadron to be a record, was flown while logging 6576 safe carrier landings in three and a half years of operations on board both the USS *Intrepid* and USS *Enterprise*.

Winners of the CNO Safety Award in 1961, VA-65 is commanded by Cdr. Harry W. Swinburne, Jr., and is presently deployed aboard the USS *Enterprise* in the Mediterranean's Sixth Fleet.

Spare Time Study Pays Off

Chief Earns Hat with Gold Braid

Swapping a Chief's hat for a Ltjg.'s is not uncommon, but Ltjg. Toros Khachatourian burned plenty of midnight oil earning his cap with the gold braid.

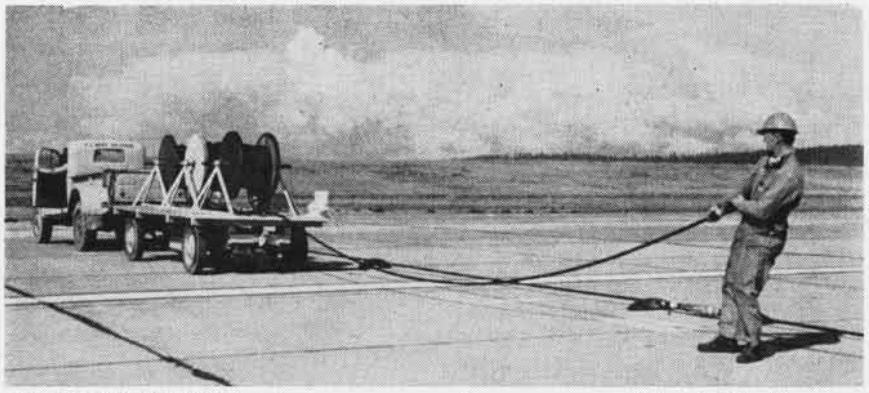
The 20-year Navy veteran, who had only a 6th grade education when he first entered the service, was commissioned from the ranks in March after putting in many thousands of hours in off-duty study. By the time he arrived at Naval Air Technical Training, Memphis, Tenn., for instructor duty in 1958, he had completed a list of U.S. Armed Forces Institute correspondence courses "as long as your arm." Since then, he has received a high school graduation certificate and completed nearly two years of college credits at Memphis State University.

Before putting on his silver bars, Ltjg. Khachatourian wore a Chief Petty Officer's uniform for 10 years, advancing to Senior Chief in 1959 and Master Chief in 1962, all in the Aviation Electronics Technician rating.

After completing Officers Orientation School at Pensacola, Ltjg. Khachatourian will go to Hawaii for a tour of duty. There he hopes to acquire enough off-duty credits for a college degree for "second career" as a teacher.

RADM. CLIFTON HANDS JG HIS NEW HAT

TRAILER AT WHIDBEY SAVES TIME



OLD AND NEW METHODS *of rigging runway arresting gear are very different. The Emergency Repair Trailer cuts man-hours for the job nearly in half and increases operating efficiency.*

INGENUITY and four hours labor produced an Emergency Repair Trailer for use in replacing the arresting gear cables on runways in record time at NAS WHIDBEY ISLAND, Wash.

A. L. Sander, ABHI, petty OinC of the Arrestment Gear Shop at the West Coast base, and James Rolph, Public Works Inspector, worked together on the project. Where once it took five men 28 minutes to re-rig the arresting cable, only two men and 15 minutes are required with the trailer —a significant reduction.

"The 'down time' for these cables is important," Sander says. "We once had three emergencies, all running together. The aircraft were A-3B's. The first had to make a wheels-up landing. When it hit the cable, it ripped out the gear, closing the runway. The second took the cable on the standby runway. As it hit the ground, the third A-3 declared an emergency. Twenty minutes later we had the runway open for the third. The trailer made that possible."

The trailer carries three reels of cable, one for each type of arresting gear. The color-coded reels, cables and spare parts facilitate fast, positive identification.

The old method of re-rigging required that cables be pulled from a box and dragged across the runway by hand. With the trailer, re-rig time is sharply reduced. The trailer is hooked to a truck and pulled across the runway while the cable unreels. In one instance, a three-man Whidbey crew recorded the fast time of 12 minutes rigging the gear. Again and again, the worth of the trailer is proved.

Inspections of the arresting gear and its component parts are made at regular intervals and whenever an aircraft uses the emergency landing system. After two arrestments, the gear is automatically replaced to insure proper operation for the next pilot using it.

'Ils Sont Ici:' VF-174

French F-8 Pilots at Cecil Field

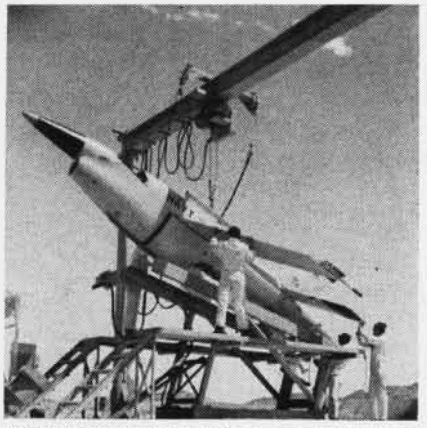
The French Navy—or at least a representative segment of it—is winding up a six-to-eight-week training period in the F-8 *Crusader* at NAS CECIL FIELD. They will be assigned to the first French *Crusader* squadron next year and will form its pilot nucleus during the early training phases.

The four pilots are Lt. Jean L. M. De La Fourniere and Ltjg. Jean Pierre J. M. Robillard, both of Fighter Squadron 16F; Lt. Yves J. M. Goupil of the French Navy flight test center in Brittany, and Ens. Robert M. Philippe, assigned to an all-weather group.

They were selected on the basis of their experience in different phases of Naval Aviation. They are going through a training syllabus almost identical to that followed by U.S. Navy pilots assigned to Cecil Field for replacement training.

Included in the training cycle for the four pilots is a three-week course in ground training in survival techniques, in the NAMTG operational flight trainers, and in VF-174. The pilots will accumulate approximately 50 hours of actual cockpit time in the F-8 during their qualification training. Each has been assigned a VF-174 "running mate" while at Cecil Field.

Upon completion of the tour, they will return to their parent units for duty until the French Navy gets its first *Crusaders*, due to be delivered next year. In all, the French Navy will get about 40 all-weather fighters.



MORE THAN 5000 *missions at military bases throughout the United States, Canada, and at two overseas installations have been flown by the Ryan Firebee remote-controlled jet target drone, according to Ryan officials.*

Editor's Corner

WATER, WATER, EVERYWHERE. Deluged with April showers (including more than seven inches of rain on April 15) the Marine Corps Air Station newspaper at Kaneohe Bay came up with the headline of the month. Describing the record rains, which caused floods, cut telephone lines and triggered several false alarms and sirens, the *Windward Marine*, proclaimed: "We're Weathering Wicked Windward Weather Well; Water, Water, Wow!"

A Commentary on the Times—WAVES aboard NAS JACKSONVILLE have been authorized the wearing of blue (winter) uniforms during the summer months while working in air conditioned spaces.

PERFECT RECORD. Any doubts about the quality of Naval Aviation Observer training? Ens. Richard B. Morse, of VAH-113, on his very first bomb drop on his first bombing flight in the squadron's TA-3B *Skywarrior*, hit the bullseye at the Spokane range. "It sure did come as a surprise," he understated.

Next question! Some readers of MCAS EL TORO's paper, *Flight Jacket*, had some interesting answers to the Inquiring Photographer's recent question, "Should professional boxing be banned?" Pfc. L. F. Brungardt observed, "The Yankees have an all-around good team." Pfc. D. R. Glad thought "the Dodgers or the Giants will play in the World Series." GySgt. A. E. Benjock said, "The Pirates and Yankees will be playing." And Cpl. R. Wright swung hard with "The Dodgers and Yankees are the top-rated teams."

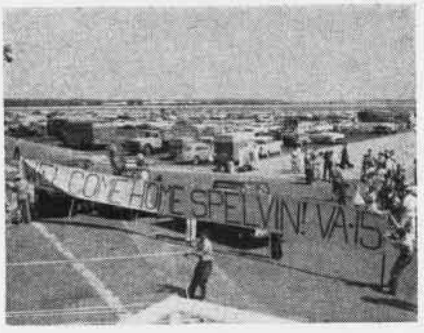
Give me that question again, please, professor?

KING ARTHUR'S SQUARE TABLE? Following is an excerpt from the VP-48 *Bellringer*, a squadron newsletter:

"The cry goes out, 'Lurch the Alaunt' and the knights and squires flog their great blue elephantine dragon from its slumber amid protests of smoke and fire. With a fearful thrashing of the waters and shouting its roar of protest, the ancient dragon once again doth lurch into the air of the great mists and proceedeth to do battle."

Which (in Olde English) is the way an anonymous VP-48 scholar describes a P-5 *Marlin* seaplane taking off on a patrol. Launch the Alert!

Spelvin X. Gooley is here. Operating in *Roosevelt* (CVA-42) is an anonymous Robin-Hood-like character known as Spelvin X. Gooley. Like the famed "Kilroy" of WW II, Spelvin is heard from periodically around the ship. He publishes notices (similar in style to Flag memos) which he calls "ZAP." A self-styled "champion of



the oppressed and unrepresented," Spelvin has been traced to VA-15, the "Valion" squadron which was based aboard *FDR* during the last Med cruise. Because he is outspoken in his comments on events within the carrier and CVG environs, Spelvin is a marked man. Thus far he has escaped suppression (and court-martial), according to his press agent. (He even received a special greeting at Mayport, Fla., upon his return from the Med. See cut.)

LOOKING BACKWARD DEPARTMENT. Master Sergeant Frank Bernau retired from the Marine Corps after a military career that spanned 36 years. An orphan, Sgt. Bernau signed up in February of 1927, before Lindbergh flew to Paris. What does he remember most? According to the ISO at El Toro, Bernau recalls that he once wore the high choke collar (green); that his pay was $17.80 per month, out of which he paid his own hospitalization; that NCO's could not own cars until they reached Staff NCO, and then only with permission of his C.O.; that "moonlighting" (working at another job) was a court-martial offense, and that, as a U.S. Marine he was not allowed to vote.

The Tangled Web. Dan Maguire, BTC at Memphis, had completed his 20 years in the Navy and asked for retirement. His application for transfer revealed that he had served the two decades without having proof of his birth recorded in Navy files. In checking up, authorities discovered that his birth records had been lost in a fire in his native Scotland. After many months, the facts of his birth—date and place—finally were confirmed—but by this time, Chief Maguire had extended his enlistment another two years. A new recruiting and retention gimmick?

SPEAKING OF KILROY . . . The name Cossairt kept popping up everywhere one looked at the El Toro Marine Air Station. Within one week's time, Carl F. Cossairt showed up on published lists for (1) promotion from Lance Corporal to Corporal, (2) a new six-year enlistment, (3) selection as the Marine of the Month, and (4) selection for a meritorious mast. Corporal Cossairt also—inevitably—showed up on the list for those transferred voluntarily to Okinawa.

Warning to Water Enthusiasts. A new way to get injured showed up at NAS CUBI POINT recently . . . collision with a fish. Water-skiing enthusiast Diane Wiseman, daughter of the Cubi Point X.O., was treated for a painful ankle injury and doctors removed a piece of fin-bone (more than an inch long) from the skin. Diane had slammed into a whole school of fish while skiing, thought she had merely scratched herself.

WAVEOFF TALE. RAdm. D. V. Gallery, USN (Ret.), tells this story on himself: ". . . When I was flying my flag in the *Coral Sea* in the Med, I put all my flight time from the ship as pilot of an AD-4 . . . got 12 landings that cruise and only two waveoffs, both on the same day. On the first . . . the ship claimed I crowded them too close when they turned into the wind and weren't up to speed when I got to the ramp. I was a little burned because I had a Roger all the way. . . . So I forgot to put down my wheels on the next pass and had to go around again—cost me ice cream for the whole flight deck crew!"

LETTERS

SIRS:

The article entitled "The Wartime European Carrier," by Scot MacDonald *(Naval Aviation News,* May 1963), was a most interesting one. In fact, all of the articles in this series have been well done.

As an Exchange Officer with the Royal Canadian Navy for two years, I met many interesting persons. One of these persons, an Army officer, had a small model of the German carrier *Graf Zeppelin.* This model had been hand-carved from memory and given to him by a German seaman, while this seaman was being held as a Prisoner of War in Canada. At one time this seaman had worked on the construction of the *Graf Zeppelin,* so he must have known a reasonable amount about the overall construction.

This carrier model was truly unique, for the "island" was located on the PORT side! I asked the Canadian officer about this and was told that he, too, was curious about it when he first saw it. The German seaman explained that this was the design of the "island," because the German aircraft scheduled to fly from the carrier had props that rotated opposite from the direction our aircraft props rotate. By having the superstructure on the port side, aircraft would, on rapid application of power, roll away from the superstructure. It was planned to have the landing traffic in a clock-wise flow, as opposed to our traffic patterns.

If you, or any of the readers could illuminate this interesting sidelight, I would appreciate it very much. I have been unable to get any verification on this design anywhere.

LT. BART W. FORDHAM
OFFICER-IN-CHARGE

CNABATRA Career Information Team
Pensacola, Fla.

SIRS:

Mention of the German carrier, *Graf Zeppelin,* in the article, "The Wartime European Carrier" *(Naval Aviation News,* May 1963) has stirred up quite a bit of discussion: first, as to her combat value, had she been completed? and second, as to her final configuration.

Wartime recon photography showed her to be a standard starboard island design. Postwar photos of her hulk at Stettin confirm this. Excellent plan drawings of *Graf Zeppelin* can be found in "Die Schiffe, Der Deutschen Kriegsmarine und Luftwaffe, 1939-45" by Erick Groener.

Concerning German prop rotation, the props on the ME-109 and JU-87 turned clock-wise (from the pilot's point of view) just as on our carrier aircraft. As any old prop-jockey will tell you, this torque will pull you to port. A few examples of other carrier aircraft with clock-wise rotation included the Japanese "Zero-Sen," Italian RE.2001 *Falco II* (intended for use on the *Aquila),* and the British *Merlin*-powered *Seafires.* Counter-clock-wise examples were the *Griffon*-powered *Seafires* and Fairey *Firefly.*

Old hands at carrier flying have told me that the effect of this torque was negligible and was the least of their worries in the "old days."

C. W. BEILSTEIN

Department of the Navy

SIRS:

Your attention is invited to the May issue of *Naval Aviation News,* pages 19, 20 and 21, that indicate, without reservation, that VF-725 flew the first Reserve jets in the Caribbean.

Please note article beginning on page 31 of October 1962 issue of *Leatherneck* magazine.

We are confident that you meant the first Navy reserve jet squadron.

VMA-144

NAS Jacksonville, Fla.

¶ Yes, we did mean the first NAVY reserve jet squadron.

SIRS:

The photo in the March issue of NANEWS showing an OE-2 taking off from the aft end of USS *Boxer* brought to mind a similar occurrence during WW II. A notation in my log of a war cruise in USS *Belleau Wood* states:

"6 June '45—*Hornet* and *Bennington* had forward corners of flight deck bent downward *(as a result of typhoon of 5 June)*—Saw history being made—The *Hornet,* after unsuccessfully attempting to launch planes in the usual manner (two F4U's in drink), resorted to steaming backward and launching 'em off the stern of the ship."

While not as exciting as retrieving aircraft on the bow as shown in earlier issues of NANEWS, this was nonetheless another example of Navy ingenuity. Perhaps your readers may know of other examples of this happening.

Please continue the high standards found in the finest aviation publication available—NANEWS.

BUDE DONATO

SIRS:

Having been a staunch supporter of our brothers-in-arms, the Marine Corps, for over 20 years, I take up the challenge recently issued by VMGR-352 relative to accident-free hours. In a sense, I think you more or less forgot that squadrons such as ours—AEW Barrier Squadron Pacific—exist, and that we in the Pacific barrier are probably in the unique position of being capable of generating more flight hours than any other single organization in the Navy or the Marine Corps. Consequently, accepting your challenge is somewhat akin to shooting fish in a barrel.

For openers, this squadron, operating three C-121J's and thirty-one EC-121K's, has been averaging about 50,000 hours per year for the past four years, which, as you can see, gives us somewhat of an overlay on your claim to fame since May of 1959. Unfortunately, we suffered one loss at Midway on 22 January 1961 so the countdown must start from that date.

Squadron records indicate following hours flown, all accident-free:

Feb. 1961 through Jan. 1962	51,820
Feb. 1962 through Jan. 1963	49,174
Feb. 1963 through Apr. 1963	11,146
Total	112,140

It does not take into account the hours generated between the period 22-31 Jan. 1961 or 1-20 May 1963.

This rebuttal is not made in any spirit of braggadocio. I feel that you may also have rebuttals from many VR outfits who have gone for much longer periods and many more hours. From my standpoint, I'd like to see every squadron pass the million-hour mark. If, when the tally-sheets are in, you can find the time to pass me a resume of how many replies you have had, I would appreciate the information.

R. T. BARBOR, CDR.
Aviation Safety Officer

AEW Barrier Sqd. Pacific

ABOUT THE AUTHORS

Sam E. Polson, JOCA, *(U.S. Navy's Test Pilot School at Patuxent,* pp. 8-10) is a frequent contributor to NANews. His most recently published feature-length stories are *AEWTU Plays Unsung Role in Glenn Shot,* May 1962, p. 17, and *Mapping the Oceans in Project Magnet,* April 1963, p. 18. But most of his stories are not by-lined, news items released at NAS PATUXENT RIVER where he is currently assigned.

Majoring in journalism at Long Beach (Calif.) City College, he interrupted his formal education when the Korean crisis broke and enlisted in the Navy. After recruit training and airman's school, he completed the PH 'A' school at Pensacola, received the now obsolete AF (Aerial Photographer's Mate) designation, and was assigned to Photographic Squadron 62, now VAP-62.

In 1955 he was transferred to FASRon-51 at NAS SANFORD where he edited the station paper. The following year he reported to the Naval Photographic Center and served TAD in the office of the Head of Naval Photography in the Pentagon. While there, his rate was changed to JO and he transferred to NAS ANACOSTIA where he edited "The Airways."

After an advanced JO course at NTC GREAT LAKES two years later, he was ordered to the staff of Commander Carrier Division One in the Pacific. His Far Eastern cruises were served in USS *Ranger* and USS *Ticonderoga.* In 1962, he received orders to his present assignment.

At Patuxent, Polson has covered such major assignments as recovery operations of astronauts John Glenn and Scott Carpenter, the P-3A *Orion* program, and most recently, Operation *Springboard* in the Caribbean.

SQUADRON INSIGNIA

VP-18's Flying Phantoms have excellent eyes, both human and electronic. Their P-2 Neptune crews were the first to sight the cruise ship, Santa Maria, a Portuguese vessel hijacked in 1961; the Able, Baker and Ham experimental capsules; Aurora 7's Astronaut Scott Carpenter; and Nina II, the replica ship which had gone off course when duplicating Columbus' voyage across the Atlantic. In 1958, 1960 and 1962, VP-18 earned the battle 'E.' The squadron also was awarded the Captain Arnold J. Isbell Trophy in 1961 for excellence in anti-submarine warfare. Since 1958, the VP-18 Phantoms have accumulated more than 48,000 hours of accident free flying. Whatever the task, men of VP-18 patrol the seas with true professionalism.

VP-18 'NEPTUNE' AND CANADIAN AIR FORCE 'ARGUS' RENDEZVOUS DURING OPERATIONS

A 'FLYING PHANTOM' SWEEPS OVER AN AMERICAN SUBMARINE DURING 2ND FLEET EXERCISES

WHAT'S AN AVIATION MUSEUM?

What's an aviation museum? What makes it live and grow? It's more than a building. It's more than just a collection of historical aircraft, engines, papers and clippings. The success of the new Naval Aviation Museum at Pensacola—starting with a modest collection of materials in a modest building—will depend upon the interest and support of the men who took part in Naval Aviation's first 52 years. Its future growth will depend upon the interest of today's Naval Aviators and the young men now in training at NAS Pensacola. WHAT IDEAS . . . MATERIALS . . . MEMORIES . . . CAN YOU GIVE?

1911 NAVAL AVIATION **NEWS** **1963**